

Sample Green Streets Policy

Vision and Purpose

Green streets are designed and operated to treat and infiltrate stormwater runoff close to its source through use of green infrastructure (also referred to as green stormwater infrastructure) while creating more vibrant and livable communities through complete streets and placemaking principles. Comparatively, a traditional street is designed to direct stormwater runoff from impervious surfaces (e.g., streets, sidewalks, driveways, roofs, etc.) into drainage systems (e.g., catch basins, pipes, manholes, etc.) that discharge directly into surface waters including rivers, streams, ponds, and wetlands.

More specifically, Green Streets design relies on three guiding principles:

1. Green Infrastructure is a range of measures that use plant or soil systems, permeable pavement or other permeable surfaces or substrates, stormwater harvest and reuse, or landscaping to intercept, store, slow down, infiltrate, treat, or evapotranspire stormwater as close to its source as possible, thereby reducing the burden on the grey infrastructure system and limiting the amount of polluted stormwater runoff entering waterways. These naturalized systems seek to complement rather than replace existing grey infrastructure, often linking green infrastructure to existing stormwater systems. The intent is to replicate parts of natural hydrologic systems that would be present in an undeveloped area.
2. Complete Streets are designed and operated to provide safety and accessibility for all the users of our roadways, trails and transit systems, including pedestrians, bicyclists, transit riders, motorists, commercial vehicles, and emergency vehicles and for people of all ages and abilities. Furthermore, Complete Streets principles contribute toward the safety, health, economic viability, and quality of life in a community by providing accessible and efficient connections between home, school, work, recreation and retail destinations by improving the pedestrian and vehicular environments throughout communities. Examples of complete street elements include accessibility for all, safe pedestrian crossings, traffic calming elements, pedestrian-scale lighting, street furniture, bicycle facilities including designated bicycle lanes, and green infrastructure.
3. Placemaking is an approach to planning, design, and public space management that creates beautiful and vibrant places by focusing on a community's assets. It emphasizes human health, economic vitality, and quality of life. Placemaking creates spaces that reflect the identities and histories of residents, taking any number of forms, from pocket parks to participatory art projects to human-scale environments. Good public spaces can range from the temporary, such as streets closed off on weekends using bollards, to a permanent public park.

Green streets provide multiple environmental, social, and economic benefits to communities:

- Improved water quality. Stormwater runoff from streets, roads, parking lots, roofs, and other impervious surfaces is a significant source of water pollution to our rivers, streams, and water bodies. When rain falls on impervious areas, the water cannot soak into the ground as it should. Stormwater drains through gutters, storm sewers, and other engineered collection systems and is discharged into nearby water bodies. The stormwater runoff carries trash, bacteria, heavy metals, and other pollutants from the developed landscape. Green Streets improve water quality by filtering stormwater, removing contaminants, and cooling the stormwater before it encounters groundwater or surface water bodies, all of which ultimately benefit watershed health. Green Streets support the Town's compliance with federal, state, and local stormwater regulatory requirements.¹
- Decreased erosion and flooding. Higher flows resulting from heavy rains can also cause erosion and flooding in urban streams, damaging habitat, property, and infrastructure. Green Streets provide cost-effective infrastructure solutions to reduce and manage stormwater runoff and flooding, including from more frequent and intense events due to climate change.
- Improved air quality. Densely developed areas concentrate traffic, creating air quality problems and public health concerns, particularly in valleys where air pollutant dispersion is restricted. Green Streets incorporate vegetation in the form of trees, shrubs, and perennials into the streetscape to sequester carbon and improve air quality by removing airborne particulate matter.
- Reduced heat island effect. Impervious surfaces contribute to the 'heat island' effect where ambient air temperatures remain higher in urbanized areas than in surrounding rural areas. This is due to a difference in the evaporative cooling influence of vegetation coverage versus impervious surfaces. Green Streets reduce the urban heat island effect by replacing paved surfaces with carefully selected vegetation that provides shade, absorbs solar radiation, and increases evaporative cooling.
- Increased biodiversity. Green Streets create habitat and provide stepping stones of vegetation that maintain regional biodiversity at all scales.
- Improved human experience. Green Streets foster unique and attractive streetscapes that protect and enhance neighborhood livability, integrate the built and natural environments, enhance the pedestrian environment, and introduce park-like elements into neighborhoods. Green Streets can serve as urban greenways or pathways and provide a preferred means of connecting neighborhoods and parks/recreation areas in ways that are attractive to pedestrians and bikers and complement Complete Streets.
- Improved economy. Green Streets signal that a community cares about its streets, and in turn, both its residents and visitors. Public investment in Green Streets and related

¹ Including, but not limited to, the EPA's General Permit for Stormwater Discharges from Small Municipal Separate Storm Sewer System (MS4) in Massachusetts.

amenities spurs private investment by developers and increases public-private partnerships benefiting downtowns and village centers. Walkability and bikeability often correlate with economic vitality, as street-level businesses benefit from more pedestrian and bike traffic. These factors contribute to rising property values, improving tax revenues, and encouraging further public and private investments.

The purpose of [City/Town]'s Green Streets policy, therefore, is to provide the multiple benefits described above to our community. It is the intent of the [City/Town] to formalize the planning, design, operation, and maintenance of Green Streets to the maximum extent practicable in public and private projects. This policy directs decision-makers to consistently plan, design, and construct Green Streets.

Core Commitment

The [City/Town] recognizes that all projects (new, maintenance, or reconstruction) are potential opportunities to apply Green Streets design principles.

Green Streets principles and design elements shall be considered for publicly and privately funded transportation, infrastructure, and street design or construction projects, and incorporated to the maximum extent practicable. All transportation, infrastructure, and street design or construction projects requiring funding or approval by the [City/Town], as well as projects funded by the state or federal government, such as Chapter 90 funds, Town improvement grants, Transportation Improvement Program (TIP), the MassWorks Infrastructure Program, Community Development Block Grants (CDBG), Capital Funding, Municipal Vulnerability Preparedness grants, and other state and federal funds for street and/or infrastructure design or construction shall adhere to (comply with) the [City/Town] Green Streets Policy.

Private developments shall adhere to (comply with) the Green Streets principles. In addition, to the extent practical, state-owned and operated roadways will comply with the Green Streets resolution, including the design, construction, and maintenance of such roadways within [City/Town] boundaries.

Projects may be excluded, upon approval by the <insert appropriate approval entity> with review by the <insert appropriate review body as needed>, where documentation and data indicate that:

1. The constraints of the roadway preclude a design that can successfully implement any green infrastructure.
2. Such facilities would constitute a threat to public safety in the determination of the <insert appropriate authority> in consultation with the <insert appropriate authority>.

Best Practices

The [City/Town] Green Streets policy intends to encourage integration of Green Streets principles into policies, planning, and design of all types of public and private projects, including new construction, reconstruction, rehabilitation, repair, and maintenance of transportation facilities on streets and redevelopment projects.

Implementation of the [City/Town] Green Streets Policy will be carried out cooperatively within all departments in the [City/Town] with multi-jurisdictional cooperation, to the greatest extent possible, among private developers, and state, regional, and federal agencies.

Green Streets principles include the development and implementation of projects in a context-sensitive manner in which project implementation is sensitive to the community's physical, economic, and social setting. The context-sensitive approach to process and design includes a range of goals by considering stakeholder and community values on a level plane with the project need. It includes goals related to livability with greater participation of those affected in order to gain project consensus. The overall goal of this approach is to preserve and enhance scenic, aesthetic, and environmental resources while improving or maintaining safety, mobility, and infrastructure conditions.

The [City/Town] recognizes that Green Streets may be achieved through single elements incorporated into a particular project, or incrementally through a series of smaller improvements or maintenance activities over time.

The latest design guidance, standards, and recommendations available will be used in the implementation of Green Streets including:

- The latest edition of the Massachusetts Stormwater Handbook and Stormwater Standards
- Documents and plans created by or for the [City/Town], such as the Green Streets Guidebook, the community's Stormwater Management Plan, bicycle and pedestrian network plans, land use plans, open space and recreation plans, and the [City/Town] Pavement Management Program Five-year Roadway Improvements Plan.

Green Streets implementation and effectiveness should be constantly evaluated for success and opportunities for improvement. The municipality will develop performance measures to gauge implementation and effectiveness of the policies.

Implementation

The [City/Town] shall make Green Streets practices a routine part of everyday operations, shall approach every transportation project and program as an opportunity to improve stormwater management through implementation of green infrastructure in conjunction with Complete Streets and placemaking principles, and shall work in coordination with other departments, agencies, and jurisdictions to achieve Green Streets.

[City/Town] shall, as soon as practicable, review and either revise or develop proposed revisions to all appropriate planning documents (master plans, open space and recreation plan, etc.), zoning and subdivision codes, laws, procedures, rules, regulations, guidelines, programs, and templates to integrate Green Streets principles in appropriate Street Projects. A committee of relevant stakeholders designated by the <insert title of appropriate entity> may be created to implement this initiative.

The [City/Town] shall maintain a comprehensive inventory of green infrastructure, including infrastructure in need of maintenance, repair, and replacement, and will prioritize projects to achieve the vision and purpose of this policy on an ongoing and long-term basis.

The [City/Town] will consider capital planning and funding to encourage implementation of Green Streets.

The [City/Town] will train pertinent town staff and decision-makers on the content of Green Streets principles and best practices for implementing policy through workshops, reference materials, and other appropriate means.

The [City/Town] will utilize inter-department coordination to promote the most responsible and efficient use of resources for activities within the public way.

The [City/Town] will seek out appropriate sources of funding and grants for implementation of Green Streets policies, and advocate for such funding directly or through affiliations.

Funding

Funding to develop a climate-resilient local wetlands ordinance/bylaw and regulations in your community may be available through an MVP action grant. More information can be found at <https://www.mass.gov/service-details/mvp-action-grant>.

Resources

1. The U.S. Environmental Protection Agency (EPA) Green Streets page: <https://www.epa.gov/G3/learn-about-green-streets>
2. Pioneer Valley Planning Commission's (PVPC) model green streets policy: <http://www.pvpc.org/sites/default/files/files/PVPC-Model%20Green%20Streets%20Policy%20Statement.pdf>
3. Vermont Green Street Guide: <https://vtcommunityforestry.org/sites/default/files/pictures/vermontgreenstreetsguidefinal.compressed.pdf>
4. Holyoke, MA Green Streets Guidebook: <https://holyokeredevelopment.com/wp-content/uploads/Green-Streets-Guidebook.pdf>
5. City of Cambridge, MA Green Streets Guidance Document: <https://www.cambridgema.gov/-/media/Files/publicworksdepartment/stormwatermanagement/Resources/greenstreetsguidancedocument.pdf>

By making our roadways more "green", we can make our communities more resilient to climate change. For more information or questions about developing a green streets policy, contact Charles River Watershed Association at (781) 788-0007 or charles@crwa.org. Also check out the resources available on CRWA's website at www.crwa.org/climate-resilience-toolkit.