SUSTAINABLE DEVELOPMENT POLICIES AND GUIDELINES

Creating sustainable communities involves promoting sustainable developments that meet the needs of the present without compromising the ability of future generations to meet their needs. To create a sustainable city, our community goals should address the environment, economic concerns, and social equity, also referred to as the "triple bottom-line" for current and future generation. Sustainable policies goals should be guided by the following measures:

- Protecting the Climate- Mitigating climate change and global warming;
- Optimizing energy performance in land use, buildings and transportation;
- Promoting renewable energy resources;
- Improving air and water quality;
- Utilizing Materials & Resources wisely;
- Leading by example in conducting municipal businesses and operations
- Educating the community for environmental stewardship;
- Protecting and enhancing the natural environment-Open space, Parks, Habitat;
- Facilitating and supporting community economic prosperity;
- Advancing social and economic equity in terms of business opportunities and the right to live in a desirable, clean and healthy community.

GOAL: To promote sustainability in the City of Detroit by supporting a healthy and livable built-environment for current and future generations.

OBJECTIVES:

1. **Develop a Sustainability & Energy Efficiency Action Plan for the City with specific goals and benchmarks.**

    a. Develop a sustainability Plan for Detroit, a supplement to the Master Plan.
    b. Establish green building task force, working groups and committees to provide oversight and education.
    c. Establish interagency sustainability working groups and task force.
    d. Revise the City codes and ordinances to remove obstacles and to develop standards to accommodate emerging green technologies, renewable energy, green manufacturing, and urban agriculture.
    e. Develop a green buildings and sustainable development education program for the City.
    f. Establish sustainability measures related to climate change based on current initiatives and protocols

2. **Promote sustainable development and green practices in land use planning, site planning, green building design, new construction, demolition, operation and maintenance**

    a. Adopt ASHRAE 189.1, Standard for Design of High-Performance, Green Buildings Except Low-Rise Residential Buildings. (1)
    b. Adopt the voluntary criteria of LEED® for Homes, LEED® for Schools, LEED® for Neighborhood Development, LEED® for New Construction & Major Renovation. (2)
    c. Establish a program for recycling materials from construction and demolition.
    d. Encourage incorporating local and regional materials for new construction and retrofit.
    e. Use green roofs to reduce stormwater runoff and reduce urban heat effect.
    f. Use "green" construction materials, products and systems, and re-use or re-purpose items/materials when possible.
    g. Establish a program for management of recyclable materials within commercial and multi-family residential buildings.
    h. Promote zero-net energy green buildings.

3. **Promote water conservation, pollution prevention, and water reuse strategies through sustainable stormwater management and other practices.**

    a. Incorporate low impact development (LID) alternatives such as storm water retention and management to reduce water runoff and pollution of rivers and waterways.
    b. Reduce the area of impervious pavement surfaces.
    c. Retain and treat site water runoffs either on-site or at a remote location for building reuse.

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1) ASHRAE 189.1 Standard sets the minimum requirements for green buildings. Developed jointly by the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE), U.S. Green Building Council (USGBC), and the Illuminating Engineering Society using ANSI's (American National Standards Institute model code lingo. AIA (American Institute of Architect is also a co-sponsor of this Standard.
2) LEED® (Leadership in Energy and Environmental Design) is a voluntary green building rating and certification system developed by the U.S. Green Building Council. The LEED rating system certifies green buildings based on addressing six categories, Sustainable Sites, Water Efficiency, Energy & Atmosphere, Material & Resources, Indoor Environmental quality, and Innovation & Design Process.

Notes:

a) LEED categories provide criteria for minimum requirements (called prerequisites) and optional credits to achieve points. LEED rating certifies buildings in four levels as Certified, Silver, Gold, or Platinum.
b) ASHRAE Standard 189.1also addresses similar criteria categories of the LEED. The categories include, Sustainable Sites, Water and Energy Efficiency, Indoor Environmental Quality, Building's Impact on Atmosphere & Material Resources, and Construction & Operations Plans.

4. **Advance a holistic, integrated, multi-disciplinary approach for design of high-performance and energy efficient new buildings, as well as retro-fit for existing buildings.**

    a. Ensure that the City codes adopt the most current green building and energy standards such as ASHRAE Standard 189.1
    b. Encourage the development community to adopt green building practices and sustainable development strategies using LEED and Green Communities Criteria 2008.
    c. Incorporate the use of efficient mechanical systems such as high efficiency mechanical equipment and EnergyStar appliances.
    d. Use energy efficient lighting systems such as LED (light emitting diodes) and other energy efficient fluorescent lighting.
    e. Promote alternative energy sources such as geothermal systems, passive solar, and wind for heating, ventilation and air conditioning to coordinate with and/or complement conventional HVAC mechanical systems.
    f. Make use of building orientation for natural light and natural ventilation to save energy.

5. **Advance a holistic, integrated, multi-disciplinary approach for neighborhood stabilization and redevelopment.**

    a. Promote energy efficiency and resource conservation in building design and construction in neighborhood developments.
    b. Utilize native planting, trees and shrubs to soften hard surfaces or pavement and to link the development to the existing green spaces and greenway network.

6. **Promote historic preservation and innovative green building practices for historic structures.**

7. **Promote protection and restoration of natural habitat and open space in all development projects.**

8. **Advance practices to improve indoor environment and air quality, particularly in structures for vulnerable populations such as children, the elderly and the handicapped.**

    a. Improve the indoor air quality of buildings by adopting the latest national standards for occupant and health

9. Advance development that incorporates alternative transportation and non-motorized options.

a. Promote complete streets in all new developments and redevelopment of major and secondary streets.
b. Encourage higher density, compact and mixed-use developments near mass transit routes.
c. Implement transportation demand management plan (TDM) ad part of new development

10. Develop City of Detroit incentives to encourage and facilitate green building and sustainable development practices.

11. Promote Public Health program and pollution prevention practices.

12. Promote energy conservation and reduce reliance on fossil fuel.

a. Promote net-metering arrangements for home and business owners.(1)

13. Reduce and reuse waste

a. Divert 50%

Notes:

a) Net-metering is an arrangement for home and business owners who produce electricity by harnessing solar or wind methods for their use and selling the excess electricity back to the grid of the utility companies.