





### Introduction

Sustainability is a short-hand term for viewing the relationship between our actions today and their affect on the future. Living sustainability means we meet our needs today without compromising the ability of future generations to meet their needs.

Sustainable design is, at its core, a whole-systems approach to thinking about design, development, operation, and construction. Parkville is committed to a sustainable future.



*Example of sustainable practices in which impervious surface areas and water efficient landscaping along the street are designed to treat storm water runoff with natural filtration and native vegetation.*

## Sustainable Parkville

The City of Parkville has an opportunity to lead by example, promoting the sustainability of the community within its own operations. The Master Plan encourages the community to serve as a metropolitan leader in sustainable practices by conducting daily operations through balance stewardship of human, financial, and environmental resources for present and future generations.

### Parkville Community Sustainability Policy

The first step in planning a sustainable community is for the City to prepare and adopt a Community Sustainability Policy and Action Plan to outline desired practices in a coordinated manner with measured outcomes. The Action Plan should address:

- existing practices and emerging opportunities for sustainability;
- recommended goals and targets for implementation;
- resources to carry out the Plan; and
- “Green Building Standards,” Best Management Practices (BMPs), and Leadership in Energy and Environmental Design (LEED).

### Green Building Standards

Platte County has adopted International Code Council (ICC) 700-2008 National Green Building Standard. The Standard is a collaborative effort between the ICC and National Association of Home Builders (NAHB), providing “green” practices that can be incorporated into new homes, including high-rise multifamily buildings, home remodeling and additions, hotels and motels, and the site upon which the green homes are located.

The green practices include lot design, preparation and development; resource, energy, and water efficiency; indoor environmental quality; and operation, maintenance, and building owner education. The four threshold levels, Bronze, Silver,



*Residential landscaping that incorporates native vegetation and encourages the natural drainage of storm water runoff reduces the need for irrigation and overall potable water consumption.*



*The use of on-site renewable energy sources and energy efficient design provides benefits for both the public and private sector.*



*Healthier environments can be provided in both indoor and outdoor spaces.*

Gold, and Emerald provide builders with a means to achieve basic, entry-level green building, or achieve the highest level of sustainable “green” building that incorporates energy savings of 60 percent or higher. The Standard can be used by any builder for their individual projects, or be the basis for a local community or state green building program.

### Best Management Practices (BMPs)

Site sustainability should be enhanced by integrating BMPs as a part of development design. BMPs and other environmental stewardship approaches suitable to Parkville are outlined in **Chapter Four**.

### Neighborhood Development

LEED for Neighborhood Development (LEED-ND) and Low-Impact Development (LID) integrate the principles of smart growth, urbanism, and green building into a national standard for neighborhood design that promotes high standards for environmentally responsible, sustainable, development. These principles include design practices that reduce automobile dependence, locate jobs and services in close proximity to residences and often make them accessible by foot or transit options, promote pedestrian activity, improve air quality, decrease polluted storm water runoff, and promote more efficient energy and water use.



*New sustainable development should include a mix of uses in a walkable environment.*

### Building Reuse

Most new corporate architecture building models have limited life cycles and are not well adapted to reuse. Instead, sustainability and development planning in Parkville should consider the entire building life cycle and not just the first user.

Sustainable buildings should be designed to be reused for a variety of purposes overtime with the benefit of extending the life cycle of the existing building stock, conserving resources, retaining cultural resources, reducing waste and environmental impacts of new buildings as they relate to materials manufacturing and transport.

Buildings in downtown Parkville are good examples of sustainable buildings – architecture design and floor plans allowed for commercial, office and residential uses over time. Local design guidelines, regulations, and development plan approvals should require consideration of potential reuse.



*These two-story buildings in Downtown Parkville have accommodated a variety of uses over their lifetime. Reinvestment in the first floor of the buildings returned them to a more historic appearance, improved the street appeal, and prolonged their usable life.*

## Sustainable Transportation

A multi-modal transportation system is a critical component of long-term sustainability and the ability to reduce pollution and land development impacts from automobile use in Parkville. The future transportation system should address the following:

- convenient connections that accommodate walking, biking and alternative transportation choices.
- efficient road design that minimizes the costs associated with routine and long-term maintenance.
- accommodate regional public transportation including regional bus routes, ride shares, and other programs that utilize the capacity of existing roadways.
- provide the necessary infrastructure to support the use of low emission and fuel-efficient vehicles (e.g. preferred parking, alternative fuel refueling stations) and support programs that facilitate shared vehicle usage (e.g. carpool drop-off areas, designated parking for vanpools or car-share services, ride boards, and shuttle services to mass transit).



*A sustainable transportation system will provide alternative transportation choices and the necessary support programs and infrastructure.*

## Housing Choices

Sustainable housing strategies should accommodate a “cradle to grave” concept providing a variety of housing choices to meet the needs of the entire population. In the future, more housing diversity with a range of affordable housing types and densities will need to be provided to meet changing lifestyles of Parkville residents.

New generations have different expectations that revolve around character and social interactions, often resulting in needs for different more urban housing choices that can be accommodated in the downtown and mixed-use development. Future needs will include housing for senior citizens, higher density attached housing clustered in proximity to transit facilities, workforce housing close to employment centers, and innovative designs providing a mix of live, work, and play options.



*Housing choices should include options for changing lifestyles and affordability needs. This multi-unit attached, maintenance provided home is an attractive alternative to conventional single-family dwellings.*

### Employment

Parkville is predominantly a bedroom community and local employment opportunities are primarily limited to education, tourism based retail, service based retail, and trade services. A more sustainable Parkville economy in the future will include increased employment opportunities, with retail/office and employment services located within close proximity to residential uses. These local employment opportunities should provide services to meet the needs of local residents, creating the benefit of increased daytime populations that will support other local businesses.

There is currently an abundance of vacant large Class “A” office space in the Northland, including the I-29 corridor and scattered elsewhere throughout Platte County. However, there will continue to be opportunities to develop small to mid-size office uses in Parkville to meet the neighborhood and service needs of the local market.



*Small scale retail/office and employment uses should be encouraged near neighborhoods to meet the needs of local residents. This example from Prospect, CO integrated a restaurant / office building with residential above in a new mixed-use neighborhood.*

### Food Production and Urban Agriculture

The average food item in the U.S. travels 1,400 miles to get to the dinner table. Food prices continue to rise and the sustainability of food production in this country is diminishing as productive land is consumed by development.

Community gardens, urban farms, rooftop gardens, and other food plots in cities are an innovative way to address food security, environmental issues, and the need for green space in an urban setting. Similar opportunities for multi-faceted sustainable activities should be developed in Parkville.

Activities such as the local Farmer’s Market represent multiple facets of sustainable practices. The Market provides outlets for local farmers to match goods to local demand. The Market’s regional attraction brings potential shoppers to the downtown market further promoting the awareness of goods, services and activities. The Market serves as an informal social gathering where citizens of all generations can regularly connect. Not surprisingly, preservation and expansion of the Farmer’s Market was among the priorities identified in the planning process.



*Expansion of the Farmer’s Market and various forms of local food production can help meet the local food supply needs. Community gardens and individual vegetable gardens should be encouraged in residential areas.*

### Goals, Policies and Implementation Actions

**Goal:** Serve as a metropolitan area leader in sustainability by conducting daily operations through balanced stewardship of human, financial, and environmental resources for present and future generations.

**Policy:** Implement sustainable practices at all levels of Parkville city government and promote sustainable practices in private development.

**Policy:** Incorporate Green Building, Best Management Practices, and Leadership in Energy and Environmental Design (LEED) and Green Build principles and practices as part of public buildings and private development.

**Policy:** Expand opportunities for local food production and urban agriculture.

**Policy:** Providing the necessary infrastructure to support the use of low emission and fuel-efficient vehicles and support programs that facilitate shared vehicle usage.

### Implementation Actions:

- Adopt a Community Sustainability Policy and Action Plan to outline desired sustainable practices with measured outcomes, goals and targets for implementation, and resources to carry out the Plan.
- Conduct audits of all City buildings and properties to reduce water use; implement measures to enhance resource efficiency; and institute pollution and waste reduction practices.
- Purchase City fleet vehicles with the highest fuel efficiency and/or lowest emission.
- Encourage sustainability in private development by building incentives into the City's development policies and ordinances.
- Develop a citizen's guide to sustainability.
- Inventory public buildings and practices to retrofit with LEED principles.
- Incent private development to design and build with LEED standards.
- Update City development regulations to incorporate standards and guidelines consistent with International Code Council (ICC) 700-2008 National Green Building Standard, Best Management Practices, and LEED for Neighborhood Development.
- Review and amend infrastructure standards to address sustainability. Such standards should accomplish public safety, transportation efficiency, maintenance and environmental goals. ■



*Unlike well-designed outdoor commercial and mixed-use districts such as Downtown Parkville, the Parkville Commons, Zona Rosa and Briarcliff Village, standalone pad sites and strip centers have shorter usable life cycles. The use of corporate architecture further limits economic sustainability.*