CREATING SUSTAINABLE NEIGHBORHOODS (1,333)

Land Use Impacts Everyone

Land Use, that is the type, amount, location, pattern, density, timing and quality of the structures and uses applied to the land (development). Land use determines:

1. The quality and character of life in residential neighborhoods;
2. The opportunities for, and convenience with which can travel to recreation and open space, schools, shopping, jobs, personal services, churches and other public facilities;
3. The amount of congestion on our streets;
4. The taxes we pay and the cost and revenues associated with public facilities and services;
5. The quality of our air and water;
6. The character and identity of our communities;
7. The preservation of open space, natural areas, prime farmland, threatened and endangered species habitat, historic resources and the character of our landscape.

Importance of Residential Land Use

Residential development is the predominant land use in urban areas and typically occupies more than 50% of a municipalities land area. Residential areas should be seen as more than roof tops and streets. They should be conceived of as a small community or a neighborhood. The neighborhood is the environment for individual homes and the quality of the neighborhood environment impacts the quality of life, the sense of place, the feeling of well being and security of its residents.

The small community is a basis of a democratic society. It is in the small community that individual identity, responsibility, character and capability are shaped in the early years of a person’s life. Urban sprawl is not conducive to good neighborhoods. There are broad implications of sprawl that negatively impact not only the residents of the development but impact the larger community of which it is a part. By sprawl I am referring to rural non-residential housing and sub-divisions unrelated to existing utilities, roadway network and supporting land uses.
Neighborhood Design Principles

In the book “Planning Connections – Human, Natural and Man Made”, I recommend the following principles to guide the planning and implementation of residential land uses to create strong neighborhoods and increase sustainability.

1. Consider development in terms of residential neighborhoods. Apply principles of the neighborhood unit concept such as through traffic on perimeter, daily needs within walking distance, if possible, and linked by pedestrian ways, and consider public transportation in addition to roadways.

2. Fit the development to the landscape, minimize mass grading and save top soil. Preserve, enhance and interpret areas of natural or historic value. Incorporate wetland enhancement and buffers into open space/recreation component of the plan.

3. Create perimeter buffers and interconnecting open space networks with recreational pathways linking areas within the development to each other, to other neighborhoods and to nearby destinations for recreation, shopping and employment.

4. Route through traffic on perimeter arterial roadways. Minimize curb cuts onto arterial and collector streets. Avoid direct property access onto collectors. Relate planned roads and improvements to an areawide functional classification system and the type and volume of traffic for which they are designed. Scale residential streets to the actual need and discourage fast, through or short cutting vehicular movements.

5. Minimize paving (and therefore run-off) by reducing street widths, building setbacks (therefore sidewalk and driveway pavements are reduced), parking and loading areas and avoid alleys.

6. Follow low impact design principles. Maintain rainfall on site through swales, native vegetation (in contrast to large areas of traditional lawn). Implement erosion control apply Best Management Practices (BMP) to protect water quality and enhance ground water infiltration.

7. Follow green infrastructure principles. Design stormwater detention and retention areas for esthetic, wildlife habitat and recreational value as well as to satisfy water quality and hydrologic functions with special treatments (BMP) to protect quality of all water exiting the site or percolating into the ground.

8. Encourage efficient use of land through cluster open space design.

9. Prepare and follow a tree preservation plan for the construction stage, both on site and along any perimeter with existing trees adjacent to the project site.
10. From a broad perspective, growth should be contiguous to existing communities which can be efficiently served by community sewer and water. This greatly reduces traffic and the cost associated with scattered development in furnishing fire, police, school and mail services. Discourage rural non-farm development on septic and well and leap frog development which cannot be efficiently served by community sewer and water. Growth should also consider an appropriate mix of land uses and a balance of jobs and housing to reduce the absolute dependence on the automobile and long commuting times.

Definitions:

Three major design concepts are related to these principles: cluster development, sustainable communities and conservation design.

Cluster Development

A development design technique that concentrates buildings on a part of the site to allow the remaining land to be used for recreation, common open space, and preservation of environmentally sensitive features.

A form of development that permits a reduction in lot area and bulk requirements, provided there is no increase in the number of lots permitted under a conventional subdivision or increase in the overall density of development, and the remaining land area is devoted to open space, active recreation, preservation of environmentally sensitive areas, or agriculture.


Sustainable Communities

Most nations are treating the Earth as a corporation in liquidation.

Many of us wonder, often out loud, if society can find a path that provides for our needs allowing people to reach their full potential, permitting us to live comfortable, and permitting our culture to flourish without creating deserts and toxic waste dumps in our footsteps or without turning our skies into grimy smears across the horizon.

We at the Sustainable Futures Society think that the people of the world can meet our needs without bankrupting the only habitable piece of real estate in the solar system. In fact, we believe that humankind can go further. That is, we can meet our needs while improving on our future, creating a better world for all Earth's inhabitants.
What is a Sustainable Society? A sustainable society is one that meets the needs of present generations while ensuring future generations the ability to meet theirs. It enables people to reach their full potential, yet protects the planet’s rich bio-diversity.

Sustainable development requires root-level solutions to the problems of our times. Most experts agree that in order for a solution to be sustainable, it must make sense simultaneously from at least three perspectives: social, economic, and environmental.

How do we get there? “The Sustainable Futures Society believes that human civilization can steer into a sustainable course by using the resources we need and using them efficiently, by recycling all materials to the maximum extent possible, by tapping into the generous supplies of clean, economical renewable energy, by restoring damaged ecosystems, and by stabilizing population. We also firmly believe that to create an enduring human presence we need changes in our ethics and fundamental changes in the systems that provide for human needs, for instance transportation, housing, waste management, energy and so on.”

Voices for the Earth by Daniel D. Chiras editor, and the Sustainable Futures Society 1995

Conservation Design

Conservation design is a design system that takes into account the natural landscape and ecology of a development site and facilitates development while maintaining the most valuable natural features and functions of the site. Conservation design includes a collection of site design principles and practices that can be combined to create environmentally sound development. The main principles for conservation design are:

- Flexibility in site design and lot size
- Thoughtful protection and management of natural areas
- Reduction of impervious surface areas, and
- Sustainable stormwater management.


For a list of related publications available, including ones on low impact design, green infrastructure and sustainability, contact the author at njp@petepointner.com.

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