V. INNOVATIVE TECHNIQUES

Roundabout on Meridian
V. Innovative Techniques

Growth Management Act and Innovative Techniques

Section 9 of the State Growth Management Act states, “the comprehensive plan should provide for innovative land use management techniques, including, but not limited to, density bonuses, cluster housing, planned unit developments, and the transfer of development rights.” In keeping with the spirit and intent of this provision, the Comprehensive Plan reviews a full range of innovative land use management techniques, including those mentioned in the Growth Management Act. These are discussed below as they relate to specific innovative techniques.

A. Clustering

Clustering is a technique which allows for an adjustment (clustering) in the location of dwelling units on a site to reserve area on other portions of the site for purposes such as resource protection or open space, so long as the number of dwelling units does not exceed the number otherwise permitted in the zoning district. In a cluster development, uses are grouped or clustered as opposed to spread out evenly throughout the parcel, as in a conventional development.

Cluster development is often utilized in a rural setting to protect resource production, such as farming or timber harvesting, and in the urban areas to protect environmentally sensitive areas or create open space for recreation, buffers and other purposes. Clustering provides development potential for the landowner while protecting a resource or providing open space. Clustering can also save on infrastructure costs by more efficient and innovative design.

Forms of clustering have been utilized by the City of Lacey for several decades: the City of Lacey currently uses clustering in Planned Residential Development projects to achieve 30% open space in each PRD project and in conventional subdivisions to receive 10% open space. The City’s wetland protection ordinance also has a provision to allow clustering in order to accomplish maximum densities while achieving protection of wetland resources. Urban center standards have promoted clustering to provide open space and achieve superior design.

Clustering often requires flexibility in standard zoning requirements: in order to achieve maximum benefit from clustering, spatial standards of the zoning code, including such things as minimum lot size and setbacks, must be varied from. In utilizing cluster concepts, flexibility from spatial requirements must be allowed to achieve more innovative and creative development.

B. Innovative Incentive Strategies: Transfer of Development Rights and Density Bonus Programs

1. TDR Concepts Expanded: In 2011, the concept of TDR was expanded and retooled so it could be applied to a variety of innovative incentive programs. It is the intent of these programs to establish and implement innovative ways of achieving objectives of GMA while acquiring significant public benefit in identified areas of public interest. Specifically the intent is to:

a. Implement GMA Strategies: Implementing “smart growth” with its implied benefits to the larger community by preservation of resource lands, sustainability over the long term and more efficient provision of infrastructure and services to urban residents.

b. Creating Superior Neighborhoods: Application of “smart growth” strategies on the ground designed in a way to enhance existing neighborhood areas and accomplish the following objectives:

1) Create opportunity for development that will promote outstanding neighborhood areas while implementing GMA strategies for accommodating growth.
2) Achieve quality neighborhood areas developed in a compact urban form that will provide citizens an enhanced quality of life through superior neighborhood design.

3) Promote attractive functionally designed public and private spaces with a sense of place and identity citizens will want to be.

4) Neighborhoods that will provide a general feeling of safety and comfort to residents both from the look and feel of the built environment created and the stimulating social fabric and interaction it fosters.

5) Create urban neighborhoods that provide convenient community/social interaction and foster opportunities for memorable lifetime experiences.

6) Provide opportunities for accommodating all of a citizen’s day to day needs within walking distance, including a residence, employment, and recreation.

7) Provide development options that depart from previous Euclidian zoning limitations to better support identified public needs, foster a more sustainable community and support GMA strategies.

c. Achieve Defined Public Benefits: Creating a land use strategy that will tie long term density potential to direct public benefits. Programs are designed to:

1) Create significant land value opportunities that can only be utilized by development meeting criteria designed to achieve specific public benefits.

2) Incentives will be designed to promote development consistent with identified public purposes and interest.

3) Public benefit is emphasized in three main areas, although the potential exists for application to any number of public land use needs:

   a) Promote and achieve public ownership of irreplaceable shoreline land resources for public use, benefit and stewardship over the long term.

   b) Promote a supply of affordable housing managed or owned by a public/not for profit entity that is integrated throughout a full range of housing forms and locations to help achieve Lacey’s needs for affordable housing for moderate to low income households.

   c) Provide clear policy for participation in regional efforts for the transfer of development rights program. Designate receiving areas. However, when allocating density allowances, have emphasis on and give priority to city transfer of development rights programs and density bonus programs that have a real and direct benefit to Lacey citizens and the Lacey community.

   d. Partner with the Development Community to Achieve Community Goals: Emphasis is on implementation of programs that are of value to the development community. This is the segment of our community that develops the city and needs to rely on the market to make business decisions successful. Programs need to recognize the development community as our partner in achieving Lacey’s community vision and recognize market requirements, influence and opportunity.

Programs are designed to provide attractive incentive opportunities for the development community that make business sense and will lead to independent business decisions for private investment. Programs will increase the value for certain priority properties if used in a way that will help achieve goals identified in the City Comprehensive Land Use Plan and provide key public benefits.

2. Types of Programs Utilizing Transfer and Density Bonus Opportunities: There are three
general areas of public interest that can benefit from programs under this concept:

a. Shoreline Land Resources: Obtaining dedications of irreplaceable shoreline land resources for public ownership, use and management over the long term.

b. Affordable Housing Needs: Getting dedication of housing units or reserving housing units to meet Lacey’s affordable housing needs for moderate to low income households.

c. Farmland Preservation: Preservation of farmland and rural resources outside the urban growth area in partnership with other members of the Thurston Regional Planning Council.

3. Principles of the Concept; Underlying Assumptions:

a. Planning Under GMA: The city has an obligation under GMA to plan how the community will develop that will meet the needs of forecasted population growth over the long term. Generally this involves:

1) Allocations of property: The allocation of property to ensure there is adequate supply of land for a full range of necessary urban uses the market can utilize including residential, commercial, institutional and industrial.

2) Environmentally Responsible: That it is done in a responsible environmentally friendly fashion with protection of identified critical areas, resource lands and environmentally sensitive properties.

3) Economically Sound: That it is done in a sustainable and economically sound fashion (smart growth) where provision of utilities, services and public transportation opportunities can be provided economically over the long term.

4) Infrastructure and Services: That adequate provision is made for the infrastructure and services necessary for a functioning urban area in the configuration identified in its land use plan, including sewer, water, power, transportation, police and emergency services.

5) Public Participation: Planning the community necessarily involves early and continuous public participation and the process empowers the community to take control of its destiny by creating a vision of what the community wants to be and in implementing land use regulations that will guide and promote development in a form expected to help achieve its long term goals.

6) Community Determines Need, Allocation, Form and Location of Development: Under these general planning parameters, the community can determine what form development needs to take, where it is located, how much of each type and form of land use is necessary to provide the “right community”. It also can determine how impacts from growth will be mitigated to ensure the community can serve its own with necessary utilities, transportation opportunities, recreation needs and other expectations to achieve a healthy and vibrant community.

b. Work within a Market Economy: To successfully plan in a market driven economy, a community must consider and utilize the forces that drive the economy. Its planning must be able to identify threats to its security and opportunities that it can take advantage of. To the extent possible, its planning should capitalize on market driven opportunities and work with the market to create opportunities to the advantage of achieving its long range goals.

The particulars of a market have significant influence over what gets built, where it gets built and when. Market demand, financing, interest rates and other market factors can be expected to change over time. This creates significant fluctuations in what the market can be expected to support at any given time. This may lead to boom/bust market cycles in housing and other elements of land use development. The city must
recognize these cycles and design programs with flexibility to accommodate a range of demands and market fluctuations over the long term.

This becomes more complex understanding that Lacey is impacted by what is occurring in neighboring counties and adjacent jurisdictions. When looking at growth opportunities, utilization of land and attracting economic uses, there is competition between various interests. Supply of land, land use standards, economic policies and land use controls from one jurisdiction to the next all have significant influence over where development may occur.

Programs need to be flexible and resilient to be competitive and attractive in a regional context.

c. Creating Value through Density Increases and Transfer of Development Rights: Lacey can exercise influence over land use opportunities to the advantage of the development community and the general public by creating incentives for certain target property and development programs. The following elements of such program(s) might include:

1) Providing “Incentive” Value to Target Property or Development Concepts: Creative zoning approaches can be used to provide incentives and market development opportunities that will meet specific public objectives and GMA goals. As long as there is a market for the particular value being used as the incentive, the incentive can influence development and guide market decisions.

2) Required Form: Incentive value must be tied to a requirement that development occurs in a form and within the general framework the city has identified in the Comprehensive Land Use Plan. This will include public objectives for provision of identified community needs and amenities and use of GMA strategies and concepts.

3) Examples: A program(s) can be developed that will reward a target property or development concept with incentive density if certain program objectives are satisfied. Density rights the city has that have not been utilized elsewhere can be the basis of infusion of development rights for target properties. Natural reserves or park sites that were originally zoned for residential use but, because of other public purposes, were protected from development still retain development credits. The city can transfer density off of these properties to increase the density rights of target properties or development concepts to serve the public’s interest.

Examples are transfer of extra density into a site for an affordable housing program or transfer of density credit to an owner with shoreline property for transfer of density to receiving sites throughout the city in exchange for dedication of the shoreline property to the public for access or recreation purposes.

Implementation: Implementation of market incentive programs has potential to help achieve public objectives while rewarding the development community for investment in programs, development or actions that further goals of the Comprehensive Land Use Plan.

C. Transition Zones

For the purpose of this discussion, a transition zone is defined as an area which acts as a transition to buffer and achieve visual and physical compatibility and integration between land use zones or land uses of different intensities. The transition area may be, for example, a specific space of land area where a single-family residential environment and a multifamily residential environment, or a multifamily residential environment and a business area, are contiguous. Proper transition between one land use zone and another may be accomplished by a number of methods, including utilization of natural boundaries or requiring design to incorporate specific techniques, such as clustering, height restrictions, landscaping, buffers, berms, fences, architectural requirements, or the phasing of less intensive land uses to progressively more inten-
Land uses provided for within different zoning districts and sometimes within one zoning district may impact one another, depending upon specific nuisance characteristics associated with the land uses. For example, multifamily development may be out of character of the neighborhood if located adjacent to single family residential structures and designed in a way that is inconsistent with the architectural style of the houses, or has parking lots located in close proximity to single family yards. In the same way, high intensity commercial uses may impact single family or multifamily residential neighborhoods if improperly designed without consideration of screening, landscaping, security lighting, traffic and parking impacts.

Many objections to the contiguous location of different land uses may reflect design problems rather than incompatibility. When multifamily development is located adjacent to single family residential development, or even when higher densities of the same housing type are located within an established neighborhood, residents often object because of perceived incompatibility issues. Many adverse impacts from location of high densities or multifamily development within established single family residential areas are the result of poor design and a lack of consideration of neighborhood characteristics.

These adverse impacts can often be mitigated by proper design. Where conflicting land uses meet, a transition area is needed with requirements for consideration of special neighborhood characteristics and design techniques to mitigate perceived impacts. As part of a transition between zoning boundaries, natural features and roads may provide logical delineation. Roads, power easements, streams and other features that take up physical space and require setbacks or buffers can be used as a physical boundary to separate zones that permit uses of different intensities.

Other design techniques can be utilized with larger areas when developing planned communities and planning zoning designations. These techniques include the progression of low intensity uses to higher intensity uses; progressing from single family residential to multifamily residential, from low intensity commercial to higher intensity commercial. This concept is especially applicable to planned communities, large PRD’s or PUD’s and urban center areas.

The City of Lacey and Thurston County will continue to face many growth pressures in the coming years, particularly considering the need to accommodate high densities and urban infill in the urban growth area. These pressures will demand techniques for accommodating high densities in a manner that is acceptable to existing residential groups within established neighborhoods. When locating multi-family developments, neighborhood compatibility will be a key issue.

We should consider natural transition of zones when designating and designing new zoning boundaries and zones to accomplish plan goals. This is particularly applicable in urban centers and planned communities.
We should continue to utilize a full range of transition techniques.

D. Village or Urban Centers

There are many definitions of the village or urban center concept of development. In the 1994 Plan it was referred to as Village Center. Recent discussions of this form of development usually refer to it as urban centers and smart growth. For purposes of the update we will refer to the concept as urban center. In the most general sense, definitions of the urban center emphasize certain common elements: the compact form, a mix of residential and commercial uses, a well-defined edge, and pedestrian orientation.

An article by Lawrence A. Houstoun in Small Town gave the following definition for village center: “A village is a predominantly residential area with supporting commercial and public activities lying near its center. It does not have a clear distinction between residential and non-residential areas. A village is compact relative to its surroundings and to traditional suburban tract development, and it is easily distinguishable from the surrounding undeveloped land. The density mix and arrangement of land uses encourage pedestrian movement among local origins and destinations”.

For the purposes of this comprehensive plan, the urban center will be an overlay zone covering 60+ acres, requiring development generally consistent with Houstoun’s definition. The development will be primarily residential with commercial support services and compact form relative to its surroundings. It will have a density mix and arrangement of land uses encouraging pedestrian movement among local origins and destinations.

Urban centers can be a mechanism for achieving relatively higher density. One of the attractive features of the urban center concept is that it is designed to accommodate higher density than traditional subdivisions with a fuller mix of residential housing types. Areas currently designated for village or urban centers help control sprawl and can provide an opportunity for a wider range of housing types than would normally be available in traditional developments.

Horizon Pointe

One of the first Village Centers to achieve Master Plan approval, this 235 acres filled with Scott’s Broom sits vacant as of this writing in 2003.

The design of urban centers with mixed uses provides a full range of land uses within the center. Commercial services are provided within walking distance of urban center residents, thereby potentially reducing the need for single occupant vehicle trips.

While the opportunity for commercial services within close proximity to residential uses is convenient, it can also create problems if the commercial uses are not tightly controlled. Both the type of commercial use allowed and the design of the commercial use is important to the success of the urban center.

In order to foster the diversity inherent in the traditional urban center, zoning standards must be more flexible and more sensitive to design issues than conventional zoning. Regulation of uses and dimensions alone is insufficient. Building scale and compatibility with surroundings must also be considered. A typical urban commercial center district permits a mixture of residential,
commercial and civic uses. Commercial uses, however, are restricted to those that seem to fit the size, scale and intensity of the setting.

Design principals are often better expressed through good examples than through the blunt instrument of an ordinance.

Design of the urban center is critical to its success. Both from the layout of uses to achieve the desired neo-traditional neighborhood with its relationship of public spaces, residential and commercial uses, and from a compatibility standpoint considering architectural design and aesthetics.

The Lacey Growth Area is quite different than many of the other areas throughout the state and nation which are attempting urban center or village concepts. Lacey is a suburban community that is relatively new.

The urban center concept has been applied to undeveloped areas as opposed to those areas which are already developed and need to be redeveloped. The sites Lacey designated for development of urban centers were completely undeveloped in 1994. One of the biggest challenges of our urban centers will be to provide compatibility with land uses surrounding designated urban center sites, as opposed to redevelopment of already densely developed urban areas.

The size of the urban center is an important aspect of implementation. Because this concept requires a mix of uses and key neighborhood focal points, such as park site and elementary school and commercial services, there is a minimum amount of property required for successful implementation of an urban center. As the previous literature indicates, emphasis should be placed on the pedestrian nature of urban centers and recommends they be limited to reasonable walking distance, which is a quarter mile radius. A full quarter mile radius is 160 acres, and is considered the ideal size for the small, neo-traditional town concept. One hundred sixty acres provides ample room for provision of a full range of residential areas, a park site, an elementary school site, and commercial services. While 160 acres is considered ideal, very few undeveloped tracts within Lacey’s growth area approach 160 acres. Because of this limitation, smaller parcels over sixty acres were considered. Sixty (60) acres, again, would provide an opportunity for a park site, an elementary school site, limited commercial services, and clustered housing. Bringing the threshold down to 60 acres still significantly limits potential development sites, given land resources in our growth area. For this reason multiple ownerships were included in village center designations in 1994.

Over the past decade we have experienced difficulty with the multiple ownership designations. Problems have resulted from owners disagreeing on development timing as well as desired goals. Disagreements have made it extremely difficult to coordinate these projects, and have lead to several re-designations of properties originally designated Village Center in the 1994 Plan.

Design of the urban center has proven to be the most crucial aspect of urban centers in the Lacey area. An urban center should be laid out as a planned community, with the focus of designing the neighborhood around key elements of a neighborhood, such as a central park and school. The whole center needs to be pedestrian-oriented with a multi-modal transportation orientation. Lerner-Lam, in Neo-Traditional Neighborhood Design and Implications for Traffic Engineers, lists the following elements of neo-traditional neighborhood design:

- There is a neighborhood center within 5 minutes walking distance (approximately 1/4 mile radius).
- The streets are laid out in regular, connected, geometric patterns, at a pedestrian-friendly scale, so that there are alternate automobile and pedestrian routes to every destination.
- The streets are treated as complex public spaces, containing traffic and parking, and they are...
an integral part of the visual panorama consisting of the trees, sidewalks and buildings which front them.

- The streets are relatively narrow and the streetscapes are well-defined by the buildings along them.
- On-street parking is permitted and provides a substantial supply of spaces. The cars act as additional buffers in the form of large blocks of steel between pedestrians on sidewalks and moving vehicles on the adjacent street. They also serve to slow down the passing traffic, helping to balance the overall use of the street.
- Bicycles are considered an integral part of the transportation mode mix, and the design of the streets and sidewalks includes appropriate facilities for them.
- Buildings are limited in size, and building uses are often interspersed. Small houses, large houses, outbuildings, small apartment buildings, corner stores, restaurants and offices are compatible in size and placed in close proximity.
- In addition to streets, there are squares that form public commons, around which are larger shops and offices, as well as apartments.
- Civic buildings (meeting halls, theaters, churches, clubs, museums, etc.) may be placed along the squares and sometimes at the termination of streets so that important buildings receive important locations. The public space around the street is “closed” at its end by “vista terminations”.

Anton Clarence Nelessen sets forth ten basic design principles for villages in his book Visions for a New American Dream. These are:

- Design for the Human Scale: design for the human scale and perceptions, creating a sense of neighborhood and community.
- Ecological Responsibility: design in harmony with nature, not against it.
- Pedestrianism: define the primary community by walking dimensions.
- Open Spaces: design for internal and peripheral open spaces.
- Community Focus: design for a neighborhood or community center.
- Streetscapes: design for streets internal to the community and highways on the periphery, incorporate complementary movement opportunities.
- Variation: design for buildings of smaller scale in a pattern of various footprints.
- Mixed Use: design for mixed and multiple land uses, also include a mix of housing types, incomes, and a horizontal and vertical mix of uses.
- Design Vocabulary: specify an architectural style or styles for the community including facade treatment, walls and fences, streetscapes, materials, and colors.
- Maintenance: design community materials, and organizations that facilitate short term and long term maintenance and security.

With regard to these design principles, Nelessen states: “Each of these principles must be incorporated into the conceptual design of place which in turn must guide the master plan. The master plan must assume the location and the design intent of small communities. It must be sufficiently prescriptive to assure a municipality that positive small communities will be the end result, but must be flexible enough to encourage design and technological innovation. A more specific application of the principles must be completed as development or redevelopment areas become more clearly defined and as the master plan evolves.”

Nelessen’s principles are summarized below:

Principle One - Humanism: “Design for the human, pedestrian scale, to create a sense of community and neighborhood. The community must be a place for people to live, work, play, and interact.”

Principle Two - Ecological Responsibility: “Communities must complement the natural characteristics of the area and respect the environment.”
Principle Three - Pedestrianism: “Design for pedestrian dimensions and distances through compact form, layout, and streetscape characteristics.”

Principal Four - Open Space: “Provide for adequate internal and peripheral open spaces.”

Principal Five - Core: “Every community must have a core or community focus.”

There must be a core that contains commercial, residential, and civic buildings, a green or commons, and that provides a focal point for the community. One of the main focal points for an urban center is a grade school site. The grade school has often been considered the heart of a neighborhood. It should always be part of an urban center and used as a main focus point during design.

Principle Six - Streetscape: “Streetscapes create the form and scale of the community and must accommodate the pedestrian and the vehicle.”

As the foundation of settlement patterns, streets are our most important public spaces and, therefore, require thoughtful design.

Principal Seven - Variation: “Variation within the design conformity creates the most visually positive communities.”

The community is unique because individuality is encouraged through a fabric of diverse elements within a defined compact and varying framework of streets. A building pattern of varying sizes, shapes, and forms is required.

Principle Eight - Mixed and Multiple Uses: “A mix of land uses, housing, jobs, and incomes creates a more balanced community, reduces traffic, costs and creates better fiscal balance.”

Principal Nine - Design Vocabulary: “A small community is physically unified by common design features which include building mass and style, facade treatment, materials, colors, landscape and streetscape details.”

Principal Ten - Maintenance: “A small community must have a commitment to maintaining its character and quality of place.”

These characteristics are an attempt to bring back the traditional atmosphere of old-style towns, and integrate all parts of the community as a whole. Primary goals are to reduce automobile use, enhance neighborhood aesthetics, and to encourage a greater feeling and sense of community.

A number of conclusions can be drawn for the Lacey area based upon our own experiences, and experiences of other communities over the last decade. These are:

a. The urban center, also known as neo-traditional neighborhood design or “Smart Growth”, is a very popular design concept for achieving higher densities and more livable neighborhoods.

b. The urban center promises an opportunity to reduce automobile trips and enhance other multi-modal transportation opportunities.

c. The Lacey urban growth area provides the opportunity for the siting of a few strategically located urban centers.

d. The urban center concept promises the opportunity for accommodating a full range of housing needs.

e. We should refine existing legislation to encourage and implement designated urban centers consistent with Houstoun’s definition and Nelessen’s ten points, and adaptable to the particular needs of the Lacey’s growth area.

E. Modern Roundabouts

Traffic circles have been part of the transportation system in the United States since 1905 and many large traffic circles have been built. In
traffic circles, priority is given to entering vehicles, encouraging high-speed entries. This facilitated high speed merging and weaving of vehicles, which led to high crash experience and congestion, resulting in traffic circles falling out of favor in the mid 1950’s.

The modern roundabout was first developed in the United Kingdom to solve the problems with old traffic circles. A “give way” rule was adopted, which requires entering traffic to yield to circulating traffic. This rule prevents circular intersections from locking up by requiring cars entering the roundabout to wait for sufficient gaps in circulating traffic. Smaller circular intersections were also designed, which required slower entry and circulation speeds.

The modern roundabout improved safety characteristics of these circular intersections and significantly reduced the number and severity of accidents. The modern roundabout is significantly different than the old traffic circles, both in how they operate and how they are designed. Many countries have now adopted this new style of circular intersection.

This technique has great potential in helping Lacey deal with urban traffic at many of our intersections. It significantly reduces the number of traffic lights needed to control traffic. When this happens, many of the negative aspects of traffic signals can be eliminated.

The idea of the roundabout is to keep traffic moving. The idea of traffic lights is to stack traffic, and move it through intersections in an orderly fashion. When traffic is stacked there

The 45th/College Street roundabout was an alternative to a traffic light when traffic warranted some means of control at this intersection. This first roundabout on Lacey’s southwest side went operational in 2002.
can be high volumes of traffic not moving and consequently automobiles are burning fuel over longer periods of time, contributing to air pollution and wasting resources. Modern roundabouts significantly reduce the amount of idle time by keeping traffic moving.

Roundabouts require slower speeds at intersections, significantly reducing the number and severity of accidents that occur. Accidents at traffic lights are often caused by people speeding up to make a light that is turning red. If they miss the light and speed through the intersection, the chances for very serious accidents occur. At roundabouts the traffic is slowed, and the design requires cautious entering into the intersection. If accidents occur, they are typically at much slower speeds and much less severe.

Lacey has adopted the idea of modern roundabouts and it has become an important strategy to help us improve the management of traffic in our area. The one-way couplet and several other key traffic areas have been planned to utilize this strategy. At the time of this writing several roundabouts have been constructed and several others are planned.