



CHAPTER FIVE

CITY OF SHAWNEE COMPREHENSIVE PLAN

HOUSING & NEIGHBORHOODS

INTRODUCTION

Housing is an issue of particular importance to the City of Shawnee because of its vital role as a source of shelter, but also as a symbol of quality of life and personal pride. Likewise, neighborhoods offer an image of community pride and speak significantly to the “character” of an area – and its residents. A well maintained neighborhood with an active street life often provides the perception of caring, communication, safety, integrity, health, and family values.

Desirability of a neighborhood is based upon a number of variables, particularly those related to the local housing stock. For housing to be attractive it must be:

- ◆ **Affordable** to the extent that a household can cover the costs of purchase, maintenance, utilities and other regular expenses at an acceptable rate;
- ◆ **Adequate** to meet the needs of households in terms of living spaces, open space, amenities, and infrastructure;
- ◆ **Accessible** without undue hardship which may, on an immediate scale, include handicap accessibility and, on a larger scale, provide quick access to destinations for work, shopping or recreation;
- ◆ **Appealing** to the investor, homeowner or renter because it is well maintained, in an attractive location, new, historic, or otherwise offers a distinct or desired character; and,
- ◆ **Quality** in its materials, construction and maintenance.

Housing is certainly not the only characteristic that is important in the desirability of a neighborhood. Potential and existing homeowners and renters will be more attracted to areas that include:

- ◆ Quality **infrastructure** such as well-maintained streets, curbs (in urban settings), and storm drainage;
- ◆ **Identity** through gateways, defined edges, landscaping, lighting, signage, architecture, other streetscape amenities, or history;
- ◆ Dynamic **character**, particularly pedestrian activity such as, walking, bicycling, open communication, and children playing;
- ◆ **Proximity** to amenities such as parks, schools, churches, daily shopping, work opportunities; and,
- ◆ **“Curb appeal”** of maintained landscaping and other features that indicate active and attractive upkeep.

The purpose of the Housing & Neighborhoods element of the Shawnee Comprehensive Plan is to ensure that area homes and neighborhoods meet the current and future needs and requirements of residents. To do so, housing should be affordable, adequate, appealing and of sound quality. Neighborhoods should offer quality infrastructure, a strong identity, dynamic character, proximity to amenities, and curb appeal.

KEY HOUSING ISSUES

Residents and leaders of Shawnee have raised a number of issues that play a role in the ability to provide an exceptional living environment. These issues form the basis for goals, objectives and action statements regarding housing and neighborhoods.

Provide Affordable Housing. New homes currently under construction are beyond affordability for most Shawnee residents. At the same time, statistics indicate that a number of current homeowners spend a significantly smaller percentage of household income toward housing costs than the national average. This indicates that a gap exists in the housing supply for households willing to spend more, but unable to afford houses at the current new construction prices. It also indicates that quality homes that commonly filter to lower income households are being consumed by moderate income households, leaving low income families to acquire housing that may be substandard.

Diversify Beyond Affordability. The existing housing stock is largely comprised of single family detached homes and apartment complexes. Addition of alternatives such as lofts, “granny flats”, and mixed residential/commercial development could fill gaps in





housing supply and better ensure the availability of “life cycle” housing.

Maintain Pride in Home and Neighborhood. Neighborhoods in Shawnee offer a distinctive character because of the era in which the majority of homes in Shawnee were built. However, age has also caused deterioration to occur and, in some cases, maintenance costs have begun to exceed the upkeep ability of owners. Aggressive revitalization efforts, combined with improvements such as pedestrian paths and sidewalks, can ensure that local neighborhoods remain dynamic and highly marketable.

Create Quality Neighborhoods. Recent housing developments in and around Shawnee offer gateways, but few amenities that create “neighborhoods” rather than subdivisions. While desirability of such subdivisions may be currently high, the value and quality of life is directly related to location and “newness.” Filtration of such subdivisions begins immediately following development of the next wave of new development. On the other hand, neighborhoods with numerous amenities tend to remain desirable for an extended period of time.

HOUSING GOALS

The Comprehensive Plan Advisory Committee utilized information gathered through data collection and public input to establish issues and develop goals for improving the area housing environment. Goals are designed to specifically address housing and neighborhoods, but also complement efforts to address other topics, such as land use, transportation, growth capacity, and image.

Relative to housing and neighborhood improvements, the City of Shawnee strives to offer:

- ◆ A community in which quality, affordable housing is available in sufficient quantity to all residents at all income levels;
- ◆ A variety of housing options that are attractive, adequate and available;
- ◆ Dynamic, well maintained, established neighborhoods that promote Shawnee as a community with history, character and pride; and,
- ◆ New development with the necessary amenities and design to become established, prosperous, interconnected neighborhoods.

HOUSING OBJECTIVES & ACTIONS

PROVIDE AFFORDABLE HOUSING

Goal One: A community in which quality, affordable housing is available in sufficient quantity to all residents at all income levels

POTENTIAL OBJECTIVES

- ◆ Promote new housing that addresses the affordability gap – currently between approximately \$70,000 and \$120,000 for households between 80 percent and 120 percent of the median household income.
- ◆ Establish programs and acquire resources needed to improve housing affordability for households earning the median household income or less.
- ◆ Rehabilitate and improve existing quality homes while also maintaining the unique character of the housing stock.
- ◆ Introduce quality factory-built housing, specifically modular housing, into the mainstream market as a responsible method of addressing affordability, adequacy and availability issues.
- ◆ Address local barriers to affordable housing when provided appropriately.

POSSIBLE ACTIONS

- ✓ Aggressively coordinate with developers to reduce construction and development costs through assistance in land acquisition, infrastructure costs, pre-construction loans and other elements that impact the cost of housing.
- ✓ Promote alternative site design to achieve affordable housing, including zero-lot line development, reduced setbacks, reduced street widths, reduced lot size, mixed use development, cluster housing, and increased density.
- ✓ In coordination with research for the next Consolidated Plan, conduct a detailed housing condition survey to determine the quality of the existing housing stock and identify all substandard housing as visible from the exterior.
- ✓ Continue demolition of substandard and dilapidated housing with emphasis on the potential infill development and removal of structures along “identity” corridors.
- ✓ Enhance the capacity of Habitat for Humanity including emphasis on creating homes that complement surrounding community character.
- ✓ Encourage development of additional organizations to assist with housing improvements in both new construction and existing neighborhoods.
- ✓ Review ordinances to ensure that modular housing is treated as conventional, single family detached homes and simultaneously incorporate design criteria into ordinances that are applicable to all residents of Shawnee.





- ✓ Establish a partnership between builders, local lending institutions, local government and educational institutions such as the Gordon Cooper Technology Center to establish a modular housing industry in the community that provides affordable housing to Shawnee and the surrounding area while also creating new, skilled employment in the area.
- ✓ Pursue opportunities to acquire additional HOME funds to assist in programs such as downpayment assistance, homebuyer education and owner occupied rehabilitation.
- ✓ Seek coordination between local banks to create a revolving loan fund that can assist in homeownership assistance or housing rehabilitation.
- ✓ Revise ordinances to require manufactured housing communities to meet the standards of an enhanced, more flexible subdivision ordinance.

DIVERSIFY BEYOND AFFORDABILITY

Goal Two: A setting in which a variety of housing options are available to meet specific needs

POTENTIAL OBJECTIVES

- ◆ Promote downtown housing opportunities, particularly for students, young adults, seniors, and those seeking “live-work” opportunities.
- ◆ Establish “life-cycle housing” as an essential component of subdivision design and reinvention of existing neighborhoods.
- ◆ Introduce a variety of alternative housing types into the Shawnee market as appropriate to improve affordability, adequacy and availability.

POSSIBLE ACTIONS

- ✓ Utilize low interest loans and grant programs as a means to entice residents to invest in downtown mixed use activities that include residential units.
- ✓ Revise ordinances as needed to permit development of alternative housing types such as granny flats, row houses and multiple family homes in new development and existing neighborhoods.
- ✓ Provide density incentives to developers that are willing to incorporate alternative housing types into a new development.
- ✓ Educate builders, developers and the general public regarding the benefits of a diversified housing stock.

MAINTAIN PRIDE IN HOME AND NEIGHBORHOOD

Goal Three: An attractive housing stock within dynamic, well maintained neighborhoods that promote Shawnee as a community with character and pride

POTENTIAL OBJECTIVES

- ◆ Empower residents through development of strong, active neighborhood associations.
- ◆ Develop neighborhood protection and upkeep projects and programs through area nonprofits, local government and neighborhood associations.
- ◆ Increase enforcement and improvement of housing-related codes and ordinances.
- ◆ Ensure that amenities are available to maintain marketability of existing neighborhoods.
- ◆ Promote infill housing development on vacant parcels as appropriate.
- ◆ Maintain interconnected paths and visual corridors between neighborhoods and other destinations.
- ◆ Ensure that quality neighborhoods are free of vacant lots and other potential risks to safety and community character.
- ◆ Coordinate with tribal leadership to address neighborhood revitalization as a shared source of pride and quality of life.

POSSIBLE ACTIONS

- ✓ Seek out assistance through entities such as NeighborWorks and Local Initiatives Support Corporation (LISC) to assist in establishing a program to assist home owner associations/community development corporations in creation and self-sufficiency.
- ✓ Promote incorporation of deed restrictions or covenants into established neighborhoods along with development of an entity with the capacity of enforcement.
- ✓ Consider a “covenant campaign” in which residents of a neighborhood seeking added restrictions convince neighbors to voluntarily agree to restrictions.
- ✓ Develop a voluntary “neighborhood conservation” overlay district designed to place additional maintenance, character, use, and appearance restrictions upon properties within the district.
- ✓ Discuss the concept of annual rental registration requirement for all housing structures that will at least partially be available for lease. Registration should require an inspection of facilities prior to issuance of a permit.
- ✓ Enhance existing programs such as the owner-occupied rehabilitation program through partnership with other entities and increased funds through grants and foundations.
- ✓ Establish programs that local organizations can assist with that will improve the quality of life in neighborhoods, such as Crime Watch, neighborhood clean-up, assistance with code enforcement, programs for seniors and youth, and maintenance of public spaces and recreation areas.





- ✓ Examine code enforcement processes and regulations to ensure that enforcement is fair, expedient and utilized.
- ✓ Develop a neighborhood based Capital Improvements Plan (CIP) that corresponds to area needs, the community-wide CIP, ability to obtain funding through the budget or other resources, and, if available, neighborhood plans.
- ✓ Incorporate sidewalks into all urban neighborhoods and repair those that impede pedestrian access.
- ✓ Establish design guidelines that address issues such as materials, roof pitch, façade treatment, porches (if applicable), proportional dimensions, garage, and other elements necessary to ensure that new development and rehabilitation is consistent with the character of the area.
- ✓ Educate homeowners, apartment owners and other interested parties in the importance of home maintenance and its impact upon community quality of life, as well as property value.

CREATE QUALITY NEIGHBORHOODS

Goal Four: New development with the necessary amenities and design to become established, prosperous, interconnected neighborhoods

POTENTIAL OBJECTIVES

- ◆ Protect rural character and reduce “strip development” through promotion of rural villages and other creative development techniques.
- ◆ Create pedestrian-friendly neighborhoods that are interconnected and within access to amenities such as parks, schools and daily commercial opportunities.
- ◆ Establish identity through strong focal points, gateways and “edges” in new neighborhoods.
- ◆ Promote proximity to major amenities as well as public facilities and services to minimize development costs and future public maintenance costs.
- ◆ Encourage development of neighborhood associations and private covenants in new developments.

POSSIBLE ACTIONS

- ✓ Consider the use of incentives to entice development within or adjacent to established neighborhoods, including increased density, tax deferral, fee waivers, and a variety of other methods. Provide incentives to developers willing to develop adjacent to existing urban areas and to create points of interconnectivity, including streets, sidewalks, green spaces and paths.
- ✓ Avoid separation of residential areas through gated developments.

- ✓ Adjacent residential developments should be adequately linked with transportation arteries and pedestrian connections to encourage interaction and neighborhood mobility.
- ✓ Establish a land trust that can be charged with acquiring and managing lands placed under conservation easement.
- ✓ Create an option that rewards traditional neighborhood design or conservation subdivision techniques with increased density, reduced lot size, decreased setbacks, reduced street width and other measures as determined appropriate.
- ✓ Establish an area wide map that indicates primary conservation areas to be protected during subdivision design.
- ✓ Determine criteria for secondary conservation areas, conservation easements and concept plan approval.
- ✓ Revise ordinances as needed to allow for uncommon lot design in appropriate circumstances, including “flag” lots.

SUMMARY OF MARKET DYNAMICS

As discussed at length in the Community Profile, the current housing supply and demand in Shawnee is driven by several key issues that indicate a tightening housing market, but with growing gaps in important areas. It appears that such gaps may be impacting the natural filtration and reinvention processes commonly associated with a healthy housing market, creating a demand for “affordable housing”, placing undue pressure on the existing low income housing stock, and possibly forcing some residents into substandard structures.

The number of households is growing at a faster pace than the number of new units. As indicated and well documented in the Community Profile, the housing stock in Shawnee grew at a rate of 7.4% between 1990 and 2000 compared to the 8.9% increase in households during the same time.

Household income for the average Shawnee household is insufficient to purchase new housing in the community. As previously noted, new homes in Shawnee average approximately \$128,000. In comparison and assuming no additional debt burden, the household earning the median household income (\$27,659) can afford to finance a home of approximately \$108,169 utilizing a conventional 30 year mortgage. As shown in *Table 5.1, Housing Affordability by Income*, the maximum home price declines considerably to approximately \$85,000 if the same household utilizes an FHA or VA program for financing. To afford to finance the average new home (\$128,000) a household must earn nearly 120 percent of the median household income –





for a conventional loan. To utilize FHA or VA financing programs, a household must earn at least 150 percent of the median household income.

New housing is not necessarily “affordable”. Common perception is that this price should be in the range that is affordable to the average potential buyer; however, this is not the case in Shawnee or in many other communities. Instead, the product produced by the majority of builders will be in a range that balances profit margin, costs, ability to produce a product, and demand.

Housing units can be built for more or less than the general area of balance but the builder increases risk. A homebuilder may choose to construct custom homes for high-income residents. The margin for profit will increase, but the number of units requested will also decrease. Additionally, if the economy sours,

Table 5.1
Housing Affordability by Income, 1999
For Shawnee

Percent of Median*	Household Income	Affordable Home Payment
180%	\$49,786	\$1,245
150%	\$41,489	\$1,037
120%	\$33,191	\$830
100%	\$27,659	\$691
80%	\$22,127	\$553
50%	\$13,830	\$346
30%	\$8,298	\$207

Source: Wilbur Smith Associates based upon determination of affordable monthly payment by the Department of Housing and Urban Development

Percent of Median*	Household Income	Maximum "Affordable" Sales Price		
		FHA Financing	VA Financing	Conventional Loan
180%	\$49,786	\$151,280	\$153,760	\$194,702
150%	\$41,489	\$126,069	\$128,136	\$162,255
120%	\$33,191	\$100,864	\$102,517	\$129,815
100%	\$27,659	\$84,045	\$85,423	\$108,169
80%	\$22,127	\$67,235	\$68,338	\$86,534
50%	\$13,830	\$42,024	\$21,054	\$54,086
30%	\$8,298	\$25,214	--	\$32,452

Source: Wilbur Smith Associates based upon "affordability calculator" available at [Hwww.ginniemae.gov/H](http://www.ginniemae.gov/H) assuming no minimum credit card payment, car payment or other monthly obligation

high-end housing is generally the first to slow. On the other hand, housing constructed below the balance provides reduced profit, must be produced at a higher volume that may saturate the market too quickly, and requires increased management of labor, materials and land.

It is unlikely that builders will move above or below the target market unless market demand shifts, the market becomes saturated, a new builder finds a preferred market difficult to

penetrate, or incentives are available that make a shift to a more “affordable” product more palatable.

The significant gap between the average new home price and the average price for existing housing is a strong indicator that a gap in housing supply exists within the range of affordability for the average Shawnee household. As a result, potential homeowners must make one of three choices – spend more than is affordable and upgrade to a new home, be content with a home that is below the desired price and amenity range, or move into a home elsewhere that better fits the family’s needs. Statistics show that a number of households are paying significantly less than the amount considered affordable, indicating that they have chosen to accept housing that is less expensive than they can afford.

As a result, housing that should be filtered down is retained by those that could afford a higher priced home. The number of available units shrinks to persons considered low income (80 percent of median household income according to the Department of Housing and Urban Development), very low income (50 percent of median household income) and extremely low income (30 percent of median household income).

The tightening market for affordable housing is reflected in a shrinking vacancy rate for housing available for rent or purchase. Despite a diligent campaign by City of Shawnee staff to remove dilapidated housing from the existing stock, it is likely that some households are forced to live in substandard housing or housing that is otherwise inadequate to meet their particular needs. Add to this that the number of students attending Oklahoma Baptist and St. Gregory Universities is growing and the pressure on the affordable housing market further increases.

Interestingly, it appears that the developers and builders are attempting to address some of the need for low income housing by taking advantage of Low Income Tax Credits available for those willing to establish a specific number of rental units for low and very low income households. However, it appears that neither the rental or owner market have taken additional steps to address the need at its core – the housing gap that exists for median income households.

HOUSING PROJECTIONS

Demand for new housing, particularly affordable housing, is already concern for Shawnee residents. However, the need for new housing units will likely become more critical as the population of Shawnee continues to grow. The result may be a need for significant additional units and space.





Polynomial population projections for Shawnee, discussed in *Chapter 2, Community Profile*, of this Plan, propose a population increase of 14% between 2000 and 2010, as well as a 34.5% increase from 2000 to 2020. Assuming that the percentage of persons residing in households and the number of persons per household each remain constant, the number of households in Shawnee will roughly increase from 11,369 in 2000 to 14,400 by 2010 and 17,000 by 2020. This equates to a need for approximately 3,030 housing units by 2010 and 5,630 units by 2020 (if all new households require individual housing units).

Compared with current market dynamics, significant growth in households may result in a number of **possible** events, including:

- ◆ continued pressure upon available low income housing and existing vacant housing that may result in renovation and redevelopment of the existing housing stock or may result in individuals living in substandard homes;
- ◆ an increased number of households purchasing homes above their fiscal means;
- ◆ lack of appropriate housing results in decreased migration to Shawnee; or
- ◆ adjustments in the housing supply, including diversification of the housing stock, use of alternative construction methods, and utilization of alternative subdivision development techniques (such as zero lot line development and clustered housing) results in development of homes within the range of affordability.

Equally important for consideration of future development is location and space required to meet increased housing demand. Assuming an average of four units per acre, additional land consumed for new housing (including 15% additional land for infrastructure), constructing new homes for 5,630 households would require approximately 1,670 acres.

It is important to note that housing projections represent a **possible** outcome. In fact, a number of events will occur to impact population growth, household growth and, as a result, housing demand over the course of the next two decades. The importance in any projection, including a housing projection, is to raise awareness of a possibility that has a genuine probability of occurring. Both population and housing projections should be monitored for accuracy and relevance during the life of the Comprehensive Plan.

IMPROVING HOUSING STOCK

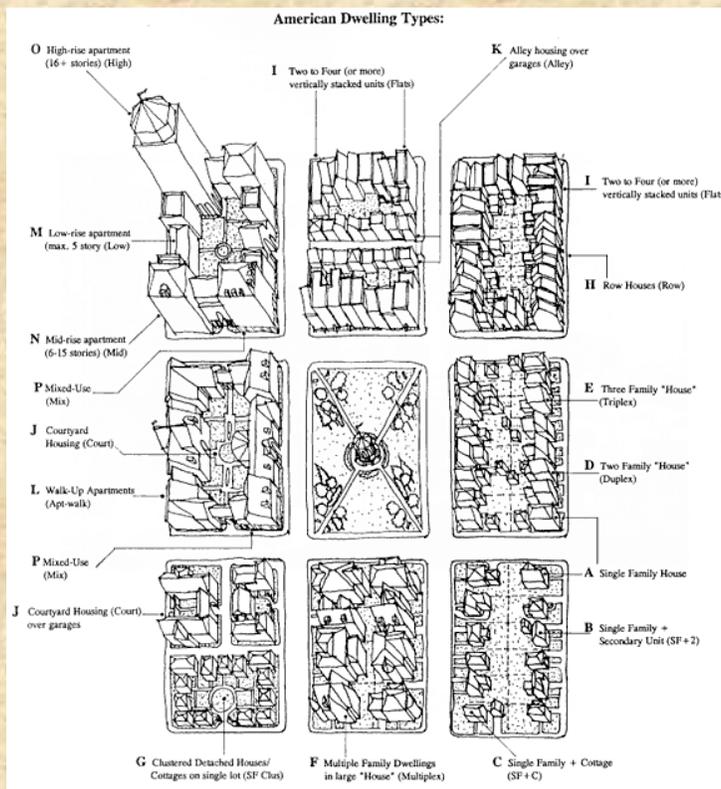
HOUSING DIVERSITY

Shawnee’s housing stock is comparable to similar communities across the country in that it is almost exclusively comprised of two types of housing: single family detached homes and apartments. For the most part, existing housing follows traditional planning practices – a structure located in the center of a site with ample space for side yards, a front yard, and a rear area.

While not surprising, the lack of diversity in housing contributes to issues regarding affordability and adequacy. Diversity improves variety and allows for transition in housing to occur. In fact, authors Michael Pyatok, Tom Jones and Willie Pettus in their recent book titled, *Good Neighbors: Affordable Family Housing*, indicate that American housing can be divided into 16 different categories, as shown in **Figure 5.1, American Housing Types**. While some of the types discussed, may not be as appropriate to Shawnee as others, the list of types exhibits the variety of housing options that are available beyond the traditional single family home or apartment complex. Placement of structures, as in the case of zero lot line development, can also impact the ability to provide homes more affordably.



Figure 5.1
American Housing Types



Source: *Good Neighbors: Affordable Family Housing* and also available at www.designadvisor.org

COMPREHENSIVE PLAN

Single Family House. This category includes the traditional home associated with the American Dream. The structure is detached from and represents the only dwelling unit on a parcel. Most often, the single family home is located in or near the center of the site. Single family homes can be designed affordably by adjusting location on the site to allow innovative techniques such as zero lot line development, through alternative construction practices, home design, and financial incentives.

Single Family House with Secondary Unit. While the appearance remains similar to the simple single family house, this category includes space for a second unit within the structure that can be leased to individuals or families. Historic homes often designed secondary unit features into the structure in order to lease space or for use by domestic assistants. Home design eventually evolved away from this practice as leasing portions of a home became “undesirable.” Today the practice is being reconsidered as the benefits of placing renters in a single family environment and away from the social culture of apartments becomes apparent.

Single Family House with Cottage. Like the home with a secondary unit, accessory cottages were once commonplace and are only recently beginning to witness resurgence – thanks in large part to the move by “New Urbanists” to recapture many discarded, but useful, practices in housing. Commonly referred to as a “Granny Flat”, the accessory cottage or above garage apartment inserts renters into the stable environment of homeownership. Additionally, the unit provides added income to

the homeowner and makes the cost of the home more affordable.



Lake Park Townhomes in Klahanie, Washington

Source: www.designadvisor.org

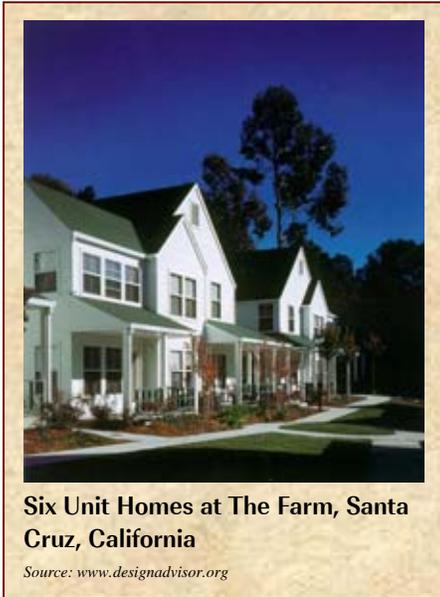
Two Family Home. Duplexes, unlike accessory structures and secondary units, remain a part of the current housing environment and a legitimate means of

generating affordable housing. Duplex construction is rare and almost never incorporated into new, large scale housing development. Duplexes can provide both rental and homeownership opportunities and, when designed as cluster housing, provide an outstanding housing alternative for seniors.

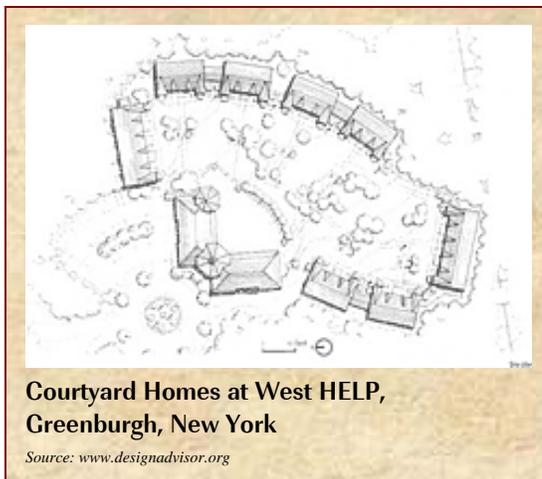
Three Family Home. Triplexes are fairly rare in today’s housing market; however, like duplexes, they provide a viable alternative

to the single family home. Triplexes, like duplexes, can be designed to appear as large scale single family structures with multiple stories and provide opportunities for both renters and owners.

Multiple Family Home. A larger variety than duplexes and triplexes, the multiple-family home can be designed to accommodate numerous households. While the scale of multiple family home design is too large to appropriately fit within established neighborhoods in Shawnee, it is a strong candidate for incorporation into new development.



Row Houses. Similar to duplexes, triplexes and multiple family homes, row houses offer the reduced construction cost that come with attached structures while also permitting a sense of independence. For a time, row houses fell out of favor as designers sought to move away from the gritty design of the urban environment. However, like other forms of housing, row houses have once again gained popularity as an option to single family homes and apartments.



Flats. While popular in other countries, such as Britain, flats – ownership or control of a substantial portion of a single story in a multiple story structure - have never been as abundant in the United States. Nevertheless, flats offer an additional

alternative when considering affordable housing opportunities.

Courtyard Housing. This category offers the benefits of a row house, with the added “twist” of entry through a courtyard. Courtyard homes may be incorporated into innovative development techniques to include playgrounds, a community center or a forested green space. Like Multiple Family Homes,





Courtyard Homes will likely not fit into established neighborhoods in Shawnee.

Apartments. Divided into four housing types (walk-up, low-rise, mid-rise, and high-rise), apartments offer affordability through the reduced construction cost per unit and added density. As in Shawnee, apartment construction is sporadic with a tendency to be developed in quantity once sufficient demand is available. As a result, the market for apartment units tends to swing between need and saturation. Recent apartment activity in Shawnee has included large-scale, low income housing developed with the assistance of Low Income Housing Tax Credits. Residents indicate an overall acceptance of apartments into the housing market, but note that new units are not designed to meet the needs or expectations of households earning an income near or above the median.

Mixed Use Housing. Mix of uses was commonplace until separation of land uses through zoning and other mechanisms in order to address negative impacts on adjacent residents. Today, mixed use housing is making a tremendous comeback, particularly in areas such as downtown Shawnee that can offer a variety of commercial retail and entertainment activities and proximity to a variety of resources such as parks, schools and work. Rehabilitation and reuse of *The Aldridge* in downtown Shawnee is one model for mixed use activity. Once completed, the renovation will include over 60 residential units, first floor commercial activity, and a renovated upper floor ballroom. Other downtown structures are also undergoing transformation, including limited, above commercial, residential development.

A ROLE FOR FACTORY-BUILT HOUSING

Factory-built housing has a historic reputation as a “cheap”, visually unappealing, temporary catalyst for decreased property value. “Mobile homes” and “mobile home parks” have created this negative connotation of factory-built housing. Over the course of several decades, however, factory-built housing has diversified and now has the capacity to be a very compatible neighbor to existing housing. Today’s factory-built housing has been improved to meet increasing demands for quality, safety, flexibility, and visual appeal while retaining affordability in comparison to traditional construction methods.

When developed in a manner appropriate to the expectations of the community, factory-built housing has the potential to provide quality, affordable housing and to effectively blend in and enhance the surrounding area. Efforts by the factory-built housing industry to meet the demands of homebuyers and communities while keeping homes affordable are paying off. In fact, in 2000 more than one in five new homes purchased in the United States was a

factory-built home. In fact, the National Association of Home Builders anticipates that, as the housing industry evolves, more new homes will incorporate prefabricated, pre-assembled materials.

FACTORY-BUILT HOUSING DEFINED

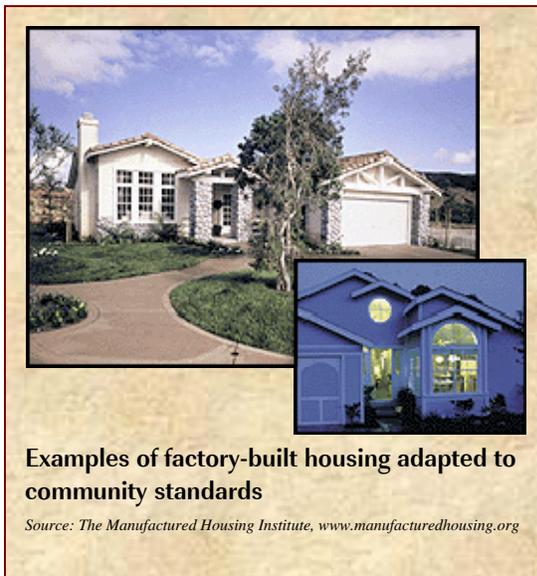
Factory-built housing is often wrongly associated with “mobile homes.” In fact, factory-built housing is comprised of a variety of construction methods ranging from manufactured housing – the successor to mobile homes, modular housing – a popular choice because of its closer ties to traditional construction, and a number of additional prefabrication processes.

Mobile home. Factory-built housing constructed prior to 1976, when Congress enacted the Federal Manufactured Home Construction and Safety Standards. Mobile homes were built upon a non-removable steel chassis and transported to the site on their own wheel and axle system pulled by a hitch. While the mobile home progressed throughout several decades, dwellings consistently suffered from poor construction and materials, as well as inconsistent engineering.

Manufactured housing. Manufactured housing is constructed entirely within the confines of a factory, removed from the elements. Such housing is constructed to the requirements of the “HUD Code” that was developed to ensure that homes transported across one or more states were held to a single, specific construction standard.

Once transported to a site, a manufactured home may be placed on a permanent slab or on a more temporary foundation. Generally speaking, the wheels and hitch are removed. In the case of a multi-section home, the portions of the home are attached at the site. Any structural additions to a manufactured home must meet local or state building requirements.

Modular housing. Modular housing is a hybrid between manufactured and traditional housing that commonly results in a home that meets or supercedes the quality of common “site-built” homes. The large majority of a modular home is





constructed in the stable environment of the factory and transported to the site by truck. Unlike manufactured housing, modular housing is not supported by a steel chassis and therefore cannot travel using its own “trailer hitch and wheels.” It is designed from initiation as a permanent home.

More important, modular housing is required to meet local building codes and other related regulations. This is particularly important in Shawnee because of the ability to require increased reinforcement against wind events such as tornadoes and straight line winds.

Modular housing is particularly popular in communities such as Shawnee that seek an alternative that meets unique, local construction methods but also offers an avenue to affordability. Modular housing is more expensive than manufactured housing, but it remains more cost effective than similar “site-built” housing.

Panelized housing. Also commonly known as “sectional housing”, panelized housing is constructed at the factory as a series of units that include windows, doors, wiring, plumbing, and other elements of the structure. Like modular housing, panelized housing is assembled on the site, but as a series of linked panels. Also similar to modular housing, the panelized home must be constructed to the local or state building codes within the state and location in which the home will be constructed on site.

Pre-cut housing. The final, factory-built alternative involves “pre-cut” housing that is only partially prepared at the factory. After all materials are cut in accordance with a specific construction schedule, they are packaged and delivered in a kit with all other components of the house to the location of the home. Beyond this, the pre-cut home is assembled in much the same manner as any other “site-built” home, but with greater efficiency. When completed, the home must meet all requirements of the appropriate local or state building code.

Other hybrid systems. As conventional, site-built housing and factory-built housing practices progressively intermingle, the housing industry continues to develop new, hybrid systems that seek to take advantage of the benefits of construction in a factory setting while adapting to the unique needs of the individual site. Concrete homes, for example, have been tested as an alternative for decades, however, it has only been recently that forms have been sufficiently developed that allow such homes to be developed effectively. While concrete homes benefit from significant reductions in heating and cooling costs, they are generally slightly more expensive to construct than conventional homes utilizing a wood or steel frame. A more recent

development, Structural Insulated Panel System (SIPS), applies a new technology to panelized housing by replacing traditional wall systems with a durable foam and frame system. While this system may become a viable option for future development, it is currently offered by only a few manufacturers with a very limited number of floor plans. Like concrete construction, savings is based on long term reduction in heating and cooling cost rather than initial price of purchase.

Other factory-built components are being successfully integrated into factory-built homes and, in some cases, site-built homes. Many of these components improve efficiency, but others impact aesthetics or cost. Engineered lumber and steel skeleton systems, for example, are proving to be viable alternatives to typical wooden framing. Hinged roof systems allow manufactured housing to now meet differing pitch requirements.

MAINTAINING AFFORDABILITY

The misperception is that factory-built housing is “cheap” because materials and quality of construction are below those of “site-built” homes. Materials can, and do, play a role in the cost of any home – including factory-built units. Manufactured housing, in particular, is able to reduce price through use of alternative materials, although it must still meet strict federal standards for construction. Modular housing, on the other hand, is expected to resemble – in appearance and use of materials – its “site-built” counterpart.

The majority of savings accrued through use of factory-built housing stems from the construction process. Factory-built housing resembles an assembly line approach that permits efficient construction under mass production conditions and without the concern for weather or vandalism. As indicated by the Manufactured Housing Institute, factory-built housing is also more cost effective because construction workers are trained specialists that are not required to travel from one job site to the next or coordinate with other specialists, such as plumbers or electricians. Also, because of the mass production, assembly line approach, the factory is able to assemble more units and materials are purchased at a reduced rate.

The level of affordability obtained through use of factory-built housing is dictated by a number of factors, but it is most directly impacted by the amount of construction that can occur in the factory. For this reason, manufactured housing is often considered to be more affordable than its factory-built counterparts because less construction occurs at the home site. On the other hand, because manufactured housing is regulated by Federal standards, the City of Shawnee has less control regarding construction requirements of manufactured housing. As previously noted,





modular housing, on the other hand, is likely to be less affordable than manufactured housing, but it offers the benefit of increased control regarding construction requirements.

Table 5.2 – National Cost and Size Comparison for New Manufactured Homes and “Site-Built” Homes, 1995-2000, indicates the overall difference in the cost of purchasing an average manufactured home compared to its conventional, site-built counterpart. Of particular note, the average multi-section manufactured home was constructed at a cost below the needed housing market (noted as approximately \$70,000 to \$120,000). While modular housing and other factory-built techniques are likely to be more expensive than manufactured housing, it remains a viable product that can be developed within the targeted range of cost. More, the significant difference in cost

Table 5.2
National Cost and Size Comparison for New Manufactured Homes and “Site-Built” Homes, 1995-2000

	1995	2000
New Manufactured Home		
<i>All Homes</i>		
Average Sales Price	\$35,400	\$46,500
Average Square Footage	1,360	1,505
Cost Per Square Foot	\$26.03	\$30.90
<i>Multi-Section Homes</i>		
Average Sales Price	\$44,300	\$53,900
Average Square Footage	1,575	1,675
Cost Per Square Foot	\$28.13	\$32.18
“Site-Built” Homes		
Average Sales Price	\$158,700	\$207,000
Less Land Price	\$34,575	\$44,700
Price of Structure	\$124,125	\$162,300
Average Square Footage	2,050	2,212
Cost Per Square Foot	\$60.55	\$73.37

Source: U.S. Department of Commerce, Bureau of the Census as compiled by the Manufactured Housing Institute

offsets the ability or need to provide additional aesthetic and design improvements that allow modular housing to be compatible with the surrounding neighborhood.

STANDARDS FOR BOTH QUALITY INFILL AND REMOTE SITE DEVELOPMENT

Countless ordinances across the country prohibit the use of factory-built housing in existing neighborhoods and subdivisions as a source of infill development. However, this trend is slowly changing as communities realize that factory-built housing has become a compatible alternative method of construction. What remains is for communities to ensure that quality and compatibility of character in neighborhoods is not sacrificed for the sake of affordability.

The City of Shawnee has already begun to consider steps toward permitting infill factory-built housing through compilation of

design standards. While these standards have not yet been implemented, they remain available for revision and action. These standards are specifically more appropriate to modular housing because of the desire to require “wind load” standards above those permitted by Federal regulations.

Visual appearance requirements may address:

- ◆ Installation upon a foundation that complies with state or local building codes;
- ◆ Length and location of the structure;
- ◆ Width of the structure (commonly at least 14-20 feet wide);
- ◆ Use of exterior materials that are consistent with surrounding residential structures, including color, texture and appearance;
- ◆ Roof construction with an acceptable pitch, overhang and materials (in some cases, the roof is required to be double pitched);
- ◆ Absence of transportation related items such as the wheels, axles and hitch;
- ◆ Landscaping that is consistent with the surrounding residential area; and,
- ◆ Construction of a garage, front porch or other feature that will add consistency with the surrounding area (and provide for enclosed storage of mowers, bicycles, etc.).

RESOURCES AND PARTNERS

FEDERAL PROGRAMS

Community Development Block Grant. The City of Shawnee is an Entitlement Community – one of very few in the country – that is below a population of 50,000 persons yet receives an annual allocation directly from the U.S. Department of Housing and Urban Development. Unfortunately, the amount of funding available to the City of Shawnee is slowly declining as the number and need of new entitlement communities outpaces the amount of additional funds allocated to the CDBG program. In Program Year 2002 (beginning July 1, 2002 and ending June 30, 2003), the community was awarded \$539,000. In Program Year 2003, that amount was reduced to only \$494,000. CDBG is the only HUD entitlement program received by the City of Shawnee.

The City of Shawnee devotes the vast majority of its CDBG funds to housing. In 2003, a significant amount of available funds was utilized for owner-occupied housing rehabilitation efforts.

The Community Development Block Grant is one of the most flexible programs available through the Federal government and is considered by many to also be among the most successful. CDBG funds can be used for a variety of community improvements





designed to benefit low and moderate income individuals, reduce an urgent need, or eliminate slum and blight.

HOME Investment Partnership. Until 1998, the City of Shawnee was considered a Small Metro Set-Aside by the State of Oklahoma to correlate with its national status for CDBG funds. However, in 1998, the state government ended the Small Metro Set-Aside program and required cities such as Shawnee to compete for HOME funds. In 2001, the City of Shawnee was successfully awarded \$251,258 and in 2002, successfully awarded \$207,821 for housing purposes, including owner occupied rehabilitation.

HOME represents the single most significant housing exclusive grant available through the federal government outside of public housing assistance programs. HOME funds are available to provide a variety of housing measures to those in need, including down payment and closing cost assistance, homebuyer education (under specific circumstances), pre-construction loans, rental assistance, and rehabilitation funds.

Although the City of Shawnee has considered entering into a HOME Consortium to again receive an annual allotment of funding, no action is expected in the foreseeable future.

Section 202 Supportive Housing for the Elderly. Designed to assist very low income persons that are 62 years or over, Section 202 provides rental assistance that can be applied to multifamily construction. In addition to rental assistance, Section 202 funds can be used for initial project funds that do not require repayment as long as the structure continues to provide reduced rent for the elderly (at minimum 40 years). The City of Shawnee has not received any Section 202 funds and is not eligible to compete but may actively coordinate with a nonprofit partner.

Section 811 Supportive Housing for the Disabled. Similar to Section 202, Section 811 meets the special needs of the disabled by allowing rental assistance for multifamily structures. Capital advances are permitted in the same fashion as Section 202. The City of Shawnee has not received any Section 811 funds and is not eligible to compete, but may actively coordinate with a nonprofit partner.

Youthbuild. This program is designed to be multifunctional. While the primary goal is to provide at-risk youth with professional and social skills, it also results in development/rehabilitation of affordable housing. Through Youthbuild, young adults are trained in marketable construction and repair skills that are then used to spur community revitalization. The City of Shawnee has not coordinated to pursue

Youthbuild funds, however ongoing coordination between Gordon Cooper Technology Center and Habitat for Humanity is expected to result in a grant application in 2004.

Low-Income Housing Tax Credit (LIHTC) Program. This program is the primary means of directing private capital towards the creation of affordable rental housing. Developers of low-income rental housing use the tax credit to offset a portion of their federal tax liability in exchange for the production of affordable rental units. To qualify for the tax credit, either 20 percent or more of the project's units must be rent-restricted and occupied by individuals whose income is 50 percent or less of the median family income; or, 40 percent or more of the units must be rent-restricted and occupied by individuals whose income is 60 percent or less of the median family income. Recent apartments developed in Shawnee have been the result of the LIHTC program. A more innovative program is currently in initial stages of planning that would involve development of infill, scattered site rental housing built upon vacant parcels throughout Shawnee with assistance through the LIHTC program.

PUBLIC HOUSING

The Shawnee Housing Authority maintains an active role in the provision of housing for low income residents throughout the community. The Housing Authority currently manages six facilities with a total of 441 units. Additionally, the program manages vouchers and certificates for 411 units.

To further its ability to achieve its mission, the Shawnee Housing Authority has formed a nonprofit with plans to become a Community Housing Development Organization (CHDO) for utilization of HOME funds and to facilitate affordable housing development.

OTHER ENTITIES

Habitat for Humanity. The only active nonprofit entity dedicated to housing in the City of Shawnee, Habitat for Humanity has struggled to find clients, despite the obvious demand. Recent innovative partnerships, such as coordination with the Shawnee Housing Authority to move Family Self-Sufficiency program graduates into homeownership may bridge the gap.

Central Oklahoma Community Action Agency (COCAA). Once an active Community Housing Development Organization, COCAA is working toward once again becoming a CHDO.

Indian Housing Authorities. Little interaction occurs between housing entities involved with the City of Shawnee and the various housing authorities for the sovereign nations of Native



American Indians. However, Indian Housing Authority funds are permitted to be used in the City of Shawnee.

IMPROVING NEIGHBORHOODS

REINVIGORATE EXISTING NEIGHBORHOODS

The majority of neighborhood reinvestment strategies deal with renovation of the housing stock. However, a strong redevelopment program must focus on the fact that neighborhoods are more than housing. A thriving, dynamic neighborhood requires a number of characteristics beyond an adequate housing stock.

Active and organized residents. Simply put, without a strong and active effort by neighborhood residents and business owners it is extraordinarily difficult to develop a successful revitalization effort. Key to community participation is organization. In many new communities, homeowner associations keep residents informed of important information and represent the neighborhood in major issues. In older, established communities, this role is often more challenging because tremendous effort is needed to organize, build excitement and gain long term participation. Often, neighborhood groups form with assistance from area churches, nonprofit organizations or other entities that have the financial and structural capacity to support and nurture the group through infancy and startup “growing pains”. Many of the more effective organizations establish Community Development Corporations designed specifically for revitalization. Still others specialize to become Community Housing Development Organizations (CHDO) that act as local housing developers or Community Based Development Organizations (CBDO) that promote area economic activity.

In Shawnee, one community group, the Dunbar Heights Community Group, has effectively organized and assisted the City of Shawnee in making housing improvements.

Edges, Nodes and Landmarks. From the design perspective, a neighborhood should function as a recognizable district. Edges to the neighborhood should be clearly delineated through community character; themes in signage, landscaping or lighting; and gateways. The neighborhood should also include quality gathering places – nodes such as a neighborhood park, community center or school. A number of these items can be developed by a community organization, usually in partnership with the public sector, through private fundraising, grant writing and local “sweat equity”.

Quality Infrastructure. Water, wastewater, storm drainage, roadway systems, and sidewalks – pedestrian paths that are



sorely lacking in Shawnee – that are in sound condition and well maintained are among obvious features that require strong public support. While the majority of systems in Shawnee appear to be in good condition, the lack of sidewalks dramatically reduces the likelihood of pedestrian activity.

Investment Potential. A dynamic neighborhood is always seeking ways to upgrade the value and quality of life for residents. In several neighborhoods in Shawnee, local government has ownership or control of numerous vacant, underutilized and dilapidated parcels that are scattered throughout existing neighborhoods. These parcels provide a strong opportunity to inject needed investment into the community including infill housing, park space or other resources needed by the community. A local organization, such as the nonprofit partner of the Shawnee Housing Authority or a local community development corporation, has the opportunity to assemble available parcels and coordinate with other parties to meet needs in the community. A similar concept is currently under proposal by the Shawnee Housing Authority that would develop affordable, scattered site housing on available vacant parcels.

Partnership. The quality of Shawnee’s neighborhoods is important to a number of parties. Organizations such as local businesses, charitable organizations, civic groups, churches, Gordon Cooper Technology Center, organizations representing local Native American Indian tribes, and the two universities are all potential partners for projects such as neighborhood clean up, neighborhood watch, landscaping, home improvements, painting, sidewalk construction, organization assistance, and research. Partners offer time, funds, materials and experience that would otherwise be unavailable.

A Vision. Neighborhoods have a particularly difficult time moving from organization to action because, generally, residents have not developed a plan for action. To move forward in a manner that maintains excitement and focus, the neighborhood requires a simple, targeted implementation plan. For areas that qualify, the Department of Housing and Urban Development offers an innovative program known as a *Neighborhood Revitalization Strategy* as an incentive for neighborhoods to plan ahead. As an extension of the Consolidated Plan for the City of Shawnee, an approved Neighborhood Revitalization Strategy specifies neighborhood improvement projects, dedicates resources to completing those projects and provides a timeline for redevelopment. In return, rules regarding housing improvements and job development are relaxed.





CREATE NEW NEIGHBORHOODS

New residential development in Shawnee is typical of predominant subdivision development. Many of the key ingredients needed to build a sense of “home” or “neighborhood” such as internal nodes and a strong theme are absent. Connectivity and location adjacent to other development is overlooked while distinct edges are established by barrier fences and gateways. Layout is designed exclusively for the convenience of automobile traffic traveling in and out of the area as opposed to pedestrian traffic traveling within the development.

On the other hand, in rural areas, development is sporadic. A significant amount of residential activity occurring outside Shawnee represents strip development consuming roadway frontage for land that is currently used for agricultural purposes. Strip development not only devours valuable frontage, it also reduces the usefulness of internal agricultural areas and blemishes the rural character of the surrounding area. Strip development surrounds Shawnee, but it is most significant along roadways near Twin Lakes.

In both cases, the tendency is to grow away from existing urban activity and resources. The result may be short term successes, but sprawl, we now realize, comes with substantial cost to the community, particularly relative to the cost of services and infrastructure necessary to maintain an expected quality of life.

Prior to sprawl, expansion occurred in a dense pattern adjacent to other development, thus ensuring that infrastructure such as streets, water, and wastewater occurred in a systematic and cost-effective fashion. Likewise, government services such as law enforcement, fire protection, schools, libraries, parks and general administration remained concentrated.

In *From Sprawl to Smart Growth*, Robert Freilich provides examples of the substantial costs associated with sprawl. He notes that the Urban Land Institute, in a study comparing sprawl conditions to those of traditional development, concluded that the combined costs of sprawl added as much as \$48,000 to the cost of a home. In another instance a community indicated that their ability to collect approximately \$2,100 in taxes per household was roughly \$1,600 less than necessary to adequately cover services.

Two alternative development patterns, Traditional Neighborhood Development and Conservation Subdivision Techniques offer the opportunity to replace traditional subdivision design with a pattern of development that is more appropriate to establishing a sense of neighborhood and better respects local character.

TRADITIONAL NEIGHBORHOOD DEVELOPMENT

Many of the established neighborhoods of Shawnee offer an overall character that is unique to the community. For the most part, these neighborhoods follow the traditional grid pattern. Houses in much of Shawnee have a “Craftsman” era appearance, complete with a front porch as entry into the predominantly one and two story structures.

While established areas of Shawnee may not capture everyone’s image of appropriate design, they carry many of the same characteristics that communities across the country are realizing have been lost through modern subdivision design.

Traditional neighborhood design recognizes the benefits of a time-honored approach to issues such as density, open space, street width, pedestrian-friendliness, amenities, mixed-use development, design, scale, and compatibility with surrounding areas. The primary focus, however, is upon the ability to walk from one destination to another, usually in less than 10 minutes.

Other characteristics of traditional neighborhood design include:

Focus on the neighborhood as a single, connected, functioning unit that is part of the community of Shawnee. As a single unit, each neighborhood should offer evident definition. The boundaries or edges of the neighborhood unit should be recognizable, but not impassible. An edge need not indicate that every neighborhood in Shawnee act as a fortress, but rather as a clearly recognizable entity.

Each neighborhood should have a focus. As discussed, a node can be a gathering point, such as a park, community center, school, or daily commercial activity. The node, like edges and gateways, should be obvious and should include the character necessary to make it unique or important to the particular neighborhood.

Pedestrian and vehicular movements are equally important. It is not possible or desirable to eliminate automobile traffic; on the other hand it is possible to make opportunities for pedestrian or bike travel more enticing. Sidewalks should complement narrow streets that reduce scale and increase safety. Sidewalks and trails are instrumental to the success of neighborhood design.

Uses within a traditional neighborhood design are mixed to allow for nonresidential activities such as commercial establishments, schools and open spaces. Housing is particularly mixed to support a wide variety of housing needs. As a rule, those living in higher density housing may wish to be closer or incorporated into commercial opportunities.





Traditional neighborhood design is compact with a variety of green spaces as relief. Generally, lot sizes may be smaller than are standard in a modern subdivision ordinance as are setbacks. In return, traditional neighborhood development offers passive and active green spaces that may be granted to the City of Shawnee or privately maintained.

Benefits of Traditional Neighborhood Design include:

- ◆ Creation of additional parks and preservation of open spaces throughout the community.
- ◆ Increased density and proximity to services, which reduces the cost of infrastructure and provision of public services.
- ◆ Development containing characteristics of historic “small town America” that are considered aesthetically pleasing and appropriate to the character of Shawnee.
- ◆ More efficient utilization of space and greater compatibility with the surrounding environment.
- ◆ A variety of housing options in a single location such as single family homes that may or may not include a secondary unit or granny flat, row houses, and multiple unit homes, among others in order to more closely meet the range of needs of potential residents.
- ◆ Mixed-use development incorporates residential and commercial activity, such as downtown buildings that offer residential units above street level commercial retail and service establishments.
- ◆ Pedestrian-friendly environments designed to decrease dependence on the automobile.
- ◆ Increased “social capital” as more opportunities for interaction between households build the genuine feeling of “neighborhood” often missing in conventional subdivisions.

CONSERVATION SUBDIVISION TECHNIQUES

The rural character of Shawnee, including the Twin Lakes area, is an integral component of the small town character of the community. Strip residential development from agricultural “sell-offs” threaten the character of the area. At the same time, however, farmers have the right to sell property for the purposes of residential development. Unfortunately, the short term benefit of strip development for the farmer is eventually overwhelmed by the long term impacts such as increased traffic along roadways, conflict between residential activity and farming activity, and the inability to offer roadway frontage for future, larger scale investment. *Conservation Subdivision Techniques* offer a compromise that permits the farmer to sell a portion of property and successfully and sensitively integrates open space and agricultural activity into residential development.

The concept behind Conservation Subdivision Techniques is simply to achieve the same number of units allowed on a site, but reduce the lot sizes and cluster the houses in order to achieve efficiencies and creativity in design. By allowing the developer to place units closer together, cost is saved in terms of the amount of road and infrastructure to be constructed, land to be cleared, and storm drainage capacity to be installed. Further, open space is preserved, which could be used for parks, natural areas, protected floodplain, or simply remain as agricultural area.

Conservation Subdivision Techniques tend to create compact, rural “hamlets” with a strong sense of identity and character. Additionally, the homeowner is able to reap the benefits of surrounding open space without the demands and liability of ownership. More, Conservation Subdivision Techniques take advantage of the strengths and weaknesses of an individual building site. Contours and views can be accentuated to add aesthetic character to the development and profit to the developer. Meanwhile areas such as floodplains, wetlands, and areas of historic significance can be utilized for open space.

Conservation Subdivision Techniques generally follow a four-step process:

Identify primary conservation areas within the site. Primary conservation areas represent areas unsuitable for development such as floodways/floodplains, wetlands, steep slopes, or other areas of significance that are deemed inappropriate for development by the City of Shawnee, such as prime farmland or forestland. These areas are not considered a part of the buildable area of the site when calculating the number of units that may be developed.

Identify secondary conservation areas within the site. Secondary conservation areas represent areas that are buildable but contain special features that the developer or the community would like to see preserved. These may include forestland, prime farmland, and special view sheds that add character to the development or even areas that the developer wishes to avoid for the benefit and marketability of the project. Secondary conservation areas are included in determination of the allowable number of units because conservation areas are a “wish list” of items that the developer or the community would like to have remain, but are not required to keep. Both primary and secondary conservation areas should be drawn on a concept plan for consideration in placement of units. In accord with the clustering concept, Conservation Subdivision Techniques generally require that a percentage of the site be set aside for open space. If so, the sum total of the primary and secondary conservation areas should be equal to or greater than the amount of open space required.





Calculate and place the number of units that may be developed on site. This is calculated in accordance with the Subdivision Ordinance (as revised to permit alternative site designs) and may be based on a minimum lot size or on a number of dwelling units per acre. Once the appropriate number of units is determined, they are placed upon the site clustered according to appropriateness to the site. Lot lines and streets are not placed until the appropriate location of units has been determined. Decisions are made at this time regarding the need and the extent to which secondary conservation areas are to be encroached upon. Open space requirements may limit the amount of areas designated as secondary conservation areas that can be removed.

Lot lines and streets are added to the development and the final concept is developed. Lot lines are placed with little regard to concerns that are commonplace in most subdivision ordinances such as irregular lots or flag lots. Efficiency and desirability of design take primary precedence.

Benefits of Conservation Subdivision Techniques include:

- ◆ Preserving open space and rural character.
- ◆ Arranging development in clusters to reduce impact upon the environment.
- ◆ Encouraging condensed development that allows for overall added units per acre while delaying build out.
- ◆ Targeting specific conservation sites of interest for preservation and for use as parklands, trails or natural areas.
- ◆ Reserving some open space as “holding areas” to allow for more dense development as the community continues to expand. In this manner, Conservation Subdivision Techniques act as a temporary compromise between traditional development patterns and typical sprawl.
- ◆ Producing quaint village or hamlet themes reminiscent of historic rural America.
- ◆ Offering opportunities to apply conservation easements to ensure that open space and agricultural areas are maintained and preserved.