Filling in the Spaces: Ten Essentials for Successful Urban Infill Housing

The Housing Partnership

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The Housing Partnership is a non-profit organization (officially known as the King County Housing Alliance) is dedicated to increasing the supply of affordable market rate housing in King County. This is achieved, in part, through policies of local government that foster increased housing development while preserving affordability and neighborhood character. The Partnership pursues these goals by: (a) building public awareness of housing affordability issues; (b) promoting design and regulatory solutions; and (c) acting as a convener of public, private and community leaders. Contact: Michael Luis, 425-453-5123, mluis@seanet.com.

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Cover photo: Ravenna Cottages. Developed by Threshold Housing.
A growth management strategy that relies on extensive urban infill requires major changes from past industry and regulatory practice. For the strategy to succeed, builders and local governments must change the way they operate and work more closely together to further each others’ goals. The ten essentials help guide the public and private sectors as they fill in the spaces with new homes in innovative developments.

The ten essentials are just that: essential. Communities that have struggled to bring about desired change and fulfill their visions will likely find some key steps they have missed along the way. None of the essentials is easy or cheap. But we must be realistic about the challenge of changing 100-year-old development patterns and promoting change in things people value highly. The rewards of growth management entail risk, and the payoffs require investments.

What we mean by infill and innovation

Current urban growth lines still allow development on the periphery of the metropolitan area, and in most cases this development will follow relatively conventional patterns of large subdivisions. Some small lot subdivisions have been developed in outlying areas, and the large masterplanned communities have a wide variety of housing types. There is plenty of innovation going on in the periphery, aided by sophisticated marketing strategies and the lack of conflict with existing established neighborhoods.

This study is about something different. As development has marched outward from central cities over the decades, some land has been left undeveloped or underdeveloped along the way. These islands can range from a half-acre with a dilapidated house, up to an abandoned school site of 20 or 30 acres. In most cases these parcels sit within established neighborhoods which have evolved in their own unique ways. Many of these sites were passed over because of steep slopes, sensitive areas, unstable soils or conflicts with adjacent uses (such as industry or freeways). Many vacant parcels end up serving as community open space with room for children and dogs.

In outlying areas, builders have more of a blank slate to work with, whereas infill sites come with a regulatory, market and aesthetic context the builder must work within and that resists change. For some sites the context works just fine and a builder can produce homes that fit right into the surroundings. For other sites, a builder cannot replicate the existing patterns and have a successful project. Without innovation and the ability to be innovative and break from the established context, many parcels will remain undeveloped.

Innovation and industry structure

An underlying principle of the Growth Management Act is that builders should use vacant or underdeveloped infill parcels before asking for more land on the periphery through an expansion of the urban growth line. This conflicts, to a large degree, with the trends in the homebuilding industry. Many of the small and medium sized builders and developers have disappeared. The remaining small builders have either moved to the very edge of the urban areas, where they can still find inexpensive land, or have moved into expensive niche markets. The large builders, pursuing economies of scale, now work primarily in masterplanned communities or large subdivisions on the periphery.

With this industry dynamic, an infill strategy becomes problematic. In high demand areas small builders will eagerly snap up available parcels, paying the extra development costs for difficult sites, confident they will get high prices for finished homes. It is not unusual to see developments of just a few expensive houses in East King County or Seattle. In most areas, however, infill opportunities have more difficulty attracting builders.
This is where innovation comes in. Higher densities, different product types and new development standards, combined with a focus on emerging markets, can turn unattractive infill sites into profitable opportunities for builders that meet critical housing needs. We now have quite a number of good examples of innovative housing developments throughout the region, but few jurisdictions allow these models in infill settings with established zoning and development standards. A successful infill strategy will make these innovative housing types into mainstream products built by small local builders.

**Innovation and the Growth Management Act**

Under the Growth Management Act (GMA) the state gives counties a projected population growth, and counties, in turn, divide this growth target among cities and unincorporated areas. Most jurisdictions have found that they cannot meet their assigned targets by growing in the same patterns and at the same densities as before. They need some areas of higher density.

Many jurisdictions have responded by planning for some areas of very high density (mostly in designated “urban centers”), while leaving the majority of land in single family neighborhoods at the prevailing zoned density. This approach has its political attractions, since the areas slated for high densities are usually in urban cores or commercial districts. It has not, however, attracted much interest from the building industry. The market for urban center housing remains limited and confined to areas of Seattle, Everett, Tacoma and some East King County cities. Most urban centers have seen little or no housing development since receiving designation as such a decade ago.

As an alternative approach to achieving higher densities, cities and counties can promote infill at mid-levels of density (between 10 and 20 units per acre). This might include small lot development, cottage housing, townhouses, auto courts and small multiplexes (see Figure 1 and Appendix A). Unlike urban center housing, there is proven demand for these housing types throughout the region, and builders have had success with them. For the most part, however, these models are found only in large subdivisions and masterplanned communities or as isolated demonstration projects. Jurisdictions will have much better success meeting their GMA goals by allowing these innovative housing types in a wide variety of infill settings.

![Figure 1](image-url)
The Ten Essentials

Homebuilding is a large, fragmented and complex industry, governed by a bewildering array of jurisdictions and regulations. The fundamental changes in homebuilding required by the GMA will not happen easily or overnight. The old saying about turning a battleship applies very well. The ten essentials provide local governments and members of the industry with a framework for pursuing change and fostering the more interactive and cooperative environment that must evolve for that change to happen. The ten essentials are:

| Political | 1. Build public understanding and acceptance of GMA obligations |
| Industry | 2. Make innovation a positive outcome for current residents |
| Marketing | 3. Make innovative housing the preferred choice for builders |
| Design | 4. Make infill housing a profitable business |
| Regulation | 5. Help new housing fit well into old neighborhoods |
| | 6. Identify market demand and plan to meet it |
| Design | 7. Design sites for livability and functionality |
| | 8. Put aside the old stock plans and start over |
| Regulation | 9. Write new development codes that promote good site and home design |
| | 10. Develop processes that promote rather than penalize innovation and infill |

Each of the ten essentials has four parts:

- **Why it matters** Or put in the negative, why failure to observe this essential will keep a community’s objectives from being achieved.
- **What it means** What specifically has to be done. The focus is on the variables in the political or development process that will be affected.
- **How to do it** In the past decade we have learned a lot about successful infill development and have seen a burst of energy in developing tools and techniques to promote it.
- **Responsibilities** The public and private sector players will each have responsibilities, and some will be joint.

Like any framework, the ten essentials are somewhat arbitrarily drawn. There could be eight or twelve. Nor are they complete. The reader will find, however, that they suggest more than enough work to keep builders and local governments busy for a long time.
Political Essentials. Elected officials must have reasons to support infill and innovation and must see them as politically safe or even beneficial

**Essential #1:**

**Build public understanding and acceptance of GMA obligations**

Political support for infill and innovation begins with the recognition by the public that communities within urban growth areas have an obligation to accept infill and higher densities in exchange for preservation of rural and resource areas in the region.

**Why it matters**

In 19th Century cities, dense infill was common, since there was great demand for housing within walking or streetcar distance of job centers. Builders filled in vacant lots and replaced light uses with more intense ones. With the build-out of central cities and the advent of the automobile, however, metropolitan areas began to grow mostly on the periphery. As successive rings matured, mostly as single family neighborhoods, prevailing development patterns became politically locked in. Local governments have viewed it as their job to protect the “character” of their neighborhoods, and that means maintaining existing densities. Moreover, residents tend to view vacant land in their neighborhoods as community open space, regardless of its ownership and legal development potential.

With the mature areas mostly built-out, housing demand would have to be satisfied in the next ring out. These peripheral areas feature large parcels which are economic to develop, fewer existing neighbors to affect, and, often, a more development-friendly atmosphere. From a marketing perspective, builders on the periphery can create entirely new communities, which are popular with buyers in the new-construction market.

Then along comes growth management, which turns this community and political dynamic on its head. Now, with less land available on the periphery, growth will be channeled into those existing mature areas in the form of infill and redevelopment, often at higher densities. But this is exactly what the structure of local government is set up to prevent. Residents of mature communities do not want changes in densities and do not want their open spaces filled in. Their elected officials will respond to those desires. Being pro-housing and pro-density is politically irrational and will often cut a councilmember’s career short.

The central problem is that, since the advent of growth management, state and local governments have done a very poor job of convincing their local citizens of the requirement to accommodate infill and higher densities as part of the growth management framework. Research has shown that awareness levels of growth management are extremely low, and thus the call for infill and higher densities seem arbitrary and in violation of the implicit and explicit political bargain that has governed land use for decades.
A better understanding of the obligations of communities under growth management is necessary before political support can be built for higher densities and infill.

**What it means**
The level of awareness of and support for growth management must increase dramatically, at both the regional and local level. Community leaders need to:

**Appreciate the magnitude of the challenge.** Changing attitudes about development patterns and building acceptance of the obligation to accept density and infill are huge undertakings, striking at the heart of fundamental values. On the continuum of challenge in public opinion shifting, it is closer to a campaign to get rid of SUVs than it is to a campaign to increase recycling.

**Be honest.** Containing sprawl and preserving rural and resource lands is not cheap, and there will be impacts on existing communities. Someone will pay the price, and an equitable society should spread that cost across the whole society, and not impose it on the next generation.

**Be realistic.** New infill and higher density developments need to reflect market demand. Consumer tastes shift slowly, as do certain bedrock values such as safety, quiet, privacy and affordability. Public discussions of new development patterns should be built around housing types that have a good chance of being built.

**How to do it**

A communications program must:

**Engage elected and civic leaders.** Within most communities there is no natural constituency for new housing, since those who would benefit from it probably live somewhere else (see Essential #2). It will take strong leadership to represent the housing needs of future generations and convince local residents they have a role in providing that housing.

**Engage passive citizens.** Most citizens remain minimally engaged in local affairs until something threatens them. Communications techniques must reach out to citizens who have an interest in the future of their community but who are not actively involved. It is critical to avoid reliance on workshops and open houses, since very few people attend them, and those who do are not representative of the population as a whole.

**Be continual and persistent.** This is not a perfunctory, one-time public information process, but rather, a sales program to a continually shifting customer base. To create the sort of radical change in the public’s understanding of its obligations requires consistent messages, delivered often, over a long period of time.

**Be specific.** Visions and big pictures are a necessary starting point, but citizens must understand the specific types of housing being proposed. This is more than just the physical forms, but also the market and anticipated impacts.
Responsibilities

**State government.** The Growth Management Act is a creature of state government, so the Governor and Legislature need to continually remind citizens of the state about the importance of managing growth and the usefulness of the system they put in place.

**Local government.** Local governments are responsible for developing realistic, market-oriented plans and strategies for encouraging innovative infill and redevelopment and for increasing densities. As part of this, they need to be the advocates for the housing needs of future generations, and to take ownership of their city’s part of the larger regional infill obligation.

**Housing industry.** Developers and builders must help local governments understand what types of infill housing are realistic in their community, and work with those governments to make housing strategies attractive to citizens. Quality development that is sensitive to its surroundings builds public support, while poor development erodes it.

**Essential #2:**
**Make innovation a positive outcome for current residents**

Crucial to building political support for infill and innovation is ensuring that new development brings benefits to the community as a whole, not just to builders and newcomers.

**Why it matters**
At their core, most political decisions involve a calculation of benefits and costs, assigning them to those who are, to some degree, “winners” and “losers.” Successful initiatives tend to benefit large numbers of local voters and confine their negative impacts to those who do not vote in the jurisdiction (hence the popularity of rental car taxes!). Now consider the dynamic that applies to infill housing and higher densities.

**Winners** The biggest “winners” are clearly the builders who stand to gain financially, the individuals and families who will live in the new housing, and the landowners who sold the property for development. Not only is this a small number of people, but only the land seller is likely to vote in the jurisdiction.

**Losers.** Among those who perceive the biggest harm from infill and density, the immediate neighbors of a property are usually most vocal. They fear traffic, noise and parking problems. Some people believe that high density housing invites crime. Residents from a larger radius around an infill project will also worry about traffic and perhaps impacts on crime rates and schools.

**Balance.** The simple political calculation in this situation clearly favors the discouragement of infill and prohibitions on higher densities. In the current climate there are not enough voters in the community who perceive themselves as winners to begin to balance against those who perceive (whether accurately or not) they will be harmed. This is especially true if voters have an insufficient understanding of their obligations under growth management (see Essential #1).
What it means

Changing the political balance means figuring out how new housing development, perhaps at higher densities, will benefit people currently living and voting in the community. Areas to explore include:

**Move-down buyers.** In many communities there will be individuals and families who would like to move to a smaller, brand new home while staying in their neighborhood. New infill development can offer that opportunity.

**Enhanced retail.** Most neighborhood retailers (supermarkets, drugstores, coffee houses, convenience foods) rely on counts of “rooftops” to determine where to invest. The customer base guides the location and size of new stores and the renovation and expansion of existing ones. Infill and higher densities will add rooftops, making communities more inviting for retailers.

**Property value impacts.** While the perception may be that higher density development will lower property values, the opposite is the generally true, especially if the new housing is for-sale. New construction will always sell for a higher per-square-foot price than older housing, increasing sales prices in the area. A new 1400 square foot house on a small lot will sell for more than an old 1400 square foot house on a large lot, indicating that people are willing to pay high prices to live in that neighborhood. This is good for property values.

**Promise of sale for redevelopment.** If land can be redeveloped at higher densities, local owners of large lots may see potential future profit in redevelopment. In most areas of the county it is not economical to tear down an old house and replace it with a single new house. It may, however, be profitable to replace one old house with three or four, making the land under the old house quite valuable. Owners of large lots can become advocates of higher densities if they see development potential in their property.

**Property tax impacts.** New construction added to the tax rolls spreads the burden of paying off existing city and school district bonds.

How to do it

The process of planning for housing should include the identification of local beneficiaries. The planning process should include:

**Demographic and market study.** (see Essential #6) The same kind of market analysis used by builders to select product types can be used by cities to identify the types of housing that would meet the future needs of current residents. A community with lots of children will need empty-nester homes in a decade, and a community with lots of empty nesters will need active adult housing, and so forth.

**Retail study.** If an area is underserved by retail, planners should know what critical mass of housing will lead retailing companies to locate or upgrade stores.
**Property value trends.** Planners should be able to provide examples of cases where infill and higher densities have increased property values in the surrounding neighborhood and where new developments have been a catalyst for further redevelopment.

**Redevelopment potential.** Property owners should have access to information that would allow them to determine the development potential of their property. The city should provide them with examples of creative ways to redevelop challenging sites.

**Property tax studies.** Local governments should analyze the property tax impacts of new housing to determine the degree to which it lowers the tax burden on existing properties.

**Responsibilities**

**Local government.** The research and information needed to help residents see the benefits of infill housing and higher densities are primarily the responsibility of local governments. Jurisdictions should include these studies in their planning budgets since they are as essential to the long term success of planning efforts as the technical issues that dominate those budgets.

**Housing industry.** Because builders will generally be seen as self-interested, they will find it difficult to play a big public role in identifying local beneficiaries of their projects. They should, however, share with local officials any information about the likelihood that current residents will move into their project.

**Civic organizations.** Civic organizations, like chambers of commerce and downtown associations should champion the benefits of new housing and higher densities and highlight the ways they improve the quality of the community at little or no cost to current residents.


**Industry Essentials.** Innovation and infill must be attractive strategies for builders through which they can achieve superior financial results.

**Essential #3:**

Make innovative housing the preferred choice for builders

Because innovative housing carries higher risks, local governments must take action to offset or mitigate those risks so that builders find that building innovative housing is a more attractive business proposition than building more conventional products.

**Why it matters**

Developing housing on a parcel of land involves a long series of choices, each of which will affect the financial success the builder will achieve with the project. For infill projects, the underlying zoning of the property and the local development standards provide a set of parameters. The builder must decide how to operate within those parameters or whether to try to change them.

During this decision process the builder will face choices that offer opportunities for innovation. But since most zoning encourages relatively conventional approaches, most builders will lean that way. So the only way innovation will happen is if builders find that the innovative product will have better financial outcomes than the more conventional product. Financial outcomes will drive decisions since even the most adventurous builder must get their project past the bankers.

The key element in the builder’s willingness to innovate is the level of risk. Real estate development is always a risky undertaking, with its huge commitments of capital, long timeframes, vulnerability to economic cycles and intense competition. Already facing these inherent risks which they cannot control, developers and builders work to minimize the risks that they can control. They look for ways to leverage their experience and build on previous market successes. In other words, risk minimization and innovation do not go well together.

To make matters worse, local governments often have difficulty accommodating innovative projects. Staff unfamiliarity, the need for public involvement, code changes or exceptions and the threat of litigation all make it much more difficult to get an innovative project approved and underway. (see Essential #10)

**What it means**

Local governments can do some things to address the market risks of innovative housing developments. They can do even more to smooth the approval process so that the innovative alternative becomes the preferred one for the builder. To make innovation the preferred choice for the builder, local governments should address:
Market reality of plans. Most comprehensive plans contain some elements that encourage innovative housing and higher densities. But often the products suggested do not fit market need and, therefore, will not get built. Innovative housing can push the envelope, but cannot stray too far out of current market reality. (See Essential #6)

Zoning for mid-level densities. The segment of the housing market seeing the greatest innovation is in the mid-level of density, between 10 and 20 units per acre. This is the range for cottage housing, small lots, auto courts, townhouses and similar products that meet the growing demand of empty nesters and other small households.

Innovation in infill settings. Much of the dramatic innovation in housing has taken place in master planned communities where the developer has significant control over land use. Builders find it more difficult to innovate on infill parcels with established zoning. (See Essential #9)

Regulators flying in the dark. Innovative housing, by definition, does not fit existing regulatory frameworks, making it difficult for agencies to process permits in a timely way. (See Essential #10)

Development standards. Development standards, such as road widths, parking ratios, heights, separations etc, are based on conventional development patterns and must be adapted to fit innovative developments. (See Essential #9)

Public process. When it comes to infill development, “the devil you know is better than the devil you don’t know.” Neighbors will tend to be skeptical of innovation and will favor development that imitates the surrounding neighborhood.

How to do it

Plan and zone for realistic innovation. Through market studies (see Essential #6) planners can identify mid-density, innovative housing types that will meet a market need, then accommodate them through comprehensive plans, zoning and development standards.

Allow innovative housing types outright. A city that has made a commitment to innovative housing should allow some types outright, or through a simple process such as administrative conditional use. For many builders, the risk and added cost of gaining exceptions to existing zoning will outweigh the profitability of the innovative option. (See Essential #10)

Adjust expensive development standards. The cost of developing innovative housing can be lowered by changing development standards, particularly those dictating access and parking requirements (See Essential #9)

Staff support and training. The jurisdiction should foster among permitting staff greater understanding of the goals of housing innovation and provide the training necessary to ensure smooth permit processing. (See Essential #10)
Responsibilities

Local government. Cities and counties have primary responsibility for changing the regulatory climate for housing innovation. Special districts may also need to adjust their development standards to accommodate innovation. In both cases, change must start at the top, with elected leaders embracing housing innovation and sending powerful signals to their staff and the building industry that the jurisdiction welcomes high quality innovative housing and wants to work with the industry to get outside the box of conventional development.

Housing industry. Builders need to help local governments understand the process through which they make choices about product types, and what variables will lead them to make different choices. The industry should promote high quality in innovative developments and work with local governments to ensure that development standards promote cost-effective quality.

Essential #4: Make infill housing a profitable business

Although some builders are having success with infill and redevelopment, it must become a more profitable business for the bulk of the single family industry which is still working on the periphery.

Why it matters
Most builders, especially the large ones, are relatively foot-loose, conducting their business wherever they can have the most success. They have a set amount of capital, borrowing ability, time and staff, and need to put those resources to the best use. For builders to embrace infill it must be a better business proposition than working on the periphery.

Land prices and development costs in East King County, South Snohomish County and some of South King County are making it increasingly difficult to produce mid-market products (say, $250,000 to $300,000) to meet the bulk of demand for new construction. Under growth management theory, these builders should be moving into the infill markets of neglected areas of King County. They are not, however, shifting in great numbers.

According to the King County Buildable Lands and Benchmark studies, all of Southwest King County averaged 270 new single family houses per year in the late 1990s. This is fewer new houses than built in either Maple Valley or Covington in a single year. But the real action is shifting to adjacent counties. In Pierce County from 1998 to 2002, builders sold over 17,000 new homes, about two-and-a-half times the number needed to accommodate job growth in the county. In Snohomish County in the same period, builders sold nearly 14,000 new homes, while employment fell by over 12,000 jobs.

So, as builders are being squeezed by land prices in the peripheral areas of King County, they are not heading to the lower cost infill opportunities of Southwest King County, but rather to the greenfields of Pierce and Snohomish Counties, and even to Thurston County. This has major implications for transportation as people commute from ever-further distances.
What it means

Builders shy away from infill development for a number of reasons.

**Higher development cost.** While infill may lead to savings on the public side, through use of existing infrastructure and services, development costs for the private sector are usually higher. Builders must pay for demolition and often deal with site contamination (about half of the capacity for single family housing in King County is on property listed as redevelopable, meaning something must be demolished). They must protect adjacent properties from excavation and other impacts. Existing roads and utilities must often be retrofitted or replaced, which is more costly than building new ones in greenfields. Soft costs for marketing, legal, engineering and planning are often similar for large and small developments, so small projects have fewer lots to spread those costs to.

**Fewer economies of scale.** In recent years builders have made great strides in driving down construction costs in order to deliver more value to the buyer. Most of their techniques, however, rely on efficiencies gained through economies of scale. With a large development the builder can crank up their marketing to generate presales, then line up all the contractors and subcontractors who move smoothly from one pre-sold house to the next. These techniques do not work as well on small infill projects.

**Marketing challenges.** When buyers look for a brand new home, they usually expect to be in a brand new neighborhood. Very small infill projects have a difficult time creating that sense of a cohesive new community. Buyers may not be as willing to pay the premium for new construction if it feels like an isolated island in an old neighborhood. (See Essential #5)

**Local opposition.** Parcels that have been vacant in a neighborhood for a long time become de facto community open space. Neighbors will not take kindly to a builder who wants to bulldoze what they see as a local park and they can throw up time consuming, costly obstacles to development.

How to do it

Demand clearly exists for new housing in close-in communities, so the question is how to get builders interested in meeting that demand and making use of available infill parcels. Steps could include:

**Area-wide environmental review.** This has been done in some areas, and should be more widespread. If the impacts of development of an infill parcel have been identified ahead of time, the developer can avoid most project-specific review.

**Land assembly and acquisition.** Local governments can assemble land into parcels large enough to attract developers and create a better sense of community. Cities can acquire surplus land from school districts and other governmental agencies and make that land available for housing development.
Rebuild infrastructure. Cities can retrofit and rebuild roads and utilities so the costs are not borne by development.

Encourage community-oriented site planning. With careful site planning even a relatively small infill development can achieve a sense of community and avoid feeling like an isolated island in an older neighborhood. Higher densities and clustering may require changes to codes and development standards (see Essentials #3, #9)

Responsibilities

Local government. Local governments will have primary responsibility for strategies to lure homebuilders to infill opportunities. This will be far easier if progress has been made on Essentials #1 and #2, and there is community support for infill development.

Housing industry. Although larger builders may begin to take more advantage of infill sites, this will likely remain the province of smaller and medium-sized builders with local knowledge. These builders should establish good working relationships with cities, through which they can help identify infill opportunities and the steps needed to make them happen.
Market Essentials. Innovative housing on infill sites must meet an identified market need and be able to attract buyers and renters.

Essential #5: Help new housing fit well into old neighborhoods

A neighborhood is like an ecosystem, with a “character” defined by a complex web of interactions within the neighborhood, and between the neighborhood and the region. Introducing new housing must be done with care to ensure that both the neighborhood and the new transplants thrive.

Why it matters

The problem of fitting new housing into existing neighborhoods cuts both ways. The neighborhood has to accept the new residents and prospective new residents have to accept the neighborhood. Neighborhood acceptance of infill is covered in Essential #1 and #2. Market acceptance of infill is quite another matter.

For at least the past 50 years, few neighborhoods have filled in gradually. Most have been laid out by land development companies in large subdivisions, with homebuilders following closely behind with new houses. So most neighborhoods have been coherent wholes physically from their beginning, with their “character” evolving through the residents. For a variety of reasons, isolated parcels have been left vacant or underdeveloped, but to jump into the middle of established neighborhoods and build brand new housing comes with some marketing challenges. Key issues include:

Creating community. The concept of neighborhood and community is central to the marketing of new homes. A homebuilder’s website begins by introducing and describing the communities they have created, and then describing the homes themselves. Rather than showing pictures of houses, the site will begin with pictures of the target demographic: families, singles, active adults, grandparents etc. Sometimes the houses themselves seem almost secondary.

To define a new community, builders look at demographics, economics and industry activity to identify demand for various types of products. Having identified a product type that will meet demand in a particular setting, they then look at the specific demographic groups in their target market to decide how exactly to configure the site and the units. Thus, a builder can shape the look and feel of an entirely new neighborhood based on the preferences of the target market.

In smaller infill projects this process is much more difficult. Rather than defining the character of a new neighborhood to fit the target market, the builder inherits the character of the existing neighborhood and must fit the marketing plan to that character. The characteristics of the existing neighborhood that the builder must work with include the current and projected demographics, zoning, quality and style of the housing stock, schools, public spaces and retail.
**Demographics and zoning.** Sophisticated builders target demographic groups when they plan out a project. In many areas ripe for infill, the current demographics are older, with fewer children, making them less attractive for young families. The logical approach would be to build housing types that will attract the empty nesters and seniors who will feel at home in the neighborhood. But this will be difficult if the existing zoning calls for large lot, family oriented housing.

**Home values.** Newly constructed homes will always sell for more than comparable existing homes, but the gap cannot get too far out of line, especially if the neighborhood is perceived as relatively stable. So if a new home is considered part of an older neighborhood, the builder will be constrained in the price the house can command. As an example, a builder may find that a new home can sell for 30 percent more than the existing homes in the area. In a neighborhood of older houses selling for $180,000, the ceiling for new homes will be around $235,000.

**What it means**

If an infill site is too small to allow a project to distinguish itself from its surroundings and create its own identity, a builder will need the flexibility to fit the project to the current market conditions in the surrounding neighborhoods. The two key elements in creating a marketable project are:

**Demographics.** New housing should be appropriate for the people who would want to live in the neighborhood. If there is a strong market for child-oriented housing, then pre-existing large lot zoning could be fine. If, however, the neighborhood seems more attractive to singles, empty-nesters or retirees, then other products with higher densities might work better.

An important role for innovative infill is to help satisfy the demand from move-down buyers from the neighborhood who want to trade in their older large lot house for a new, smaller living space. This is the ultimate demographic congruence: build housing for people who currently live just down the street.

**Value.** As neighborhoods age, the gap between the price of new construction and existing housing widens. Building and development code requirements limit just how cheap a builder can go. But the market also limits how big a premium people will pay for new construction. So, when the price gap exceeds the acceptable new-construction premium, builders will not do projects.

A way out of this trap is to allow builders to lower their costs by allowing higher density projects. Figure 2 shows two development scenarios for a 2/3 acre parcel of land studied by Threshold Housing for a demonstration project in SeaTac. Going from four units to seven units (a density of 6 units/acre up to 10 units/acre) allows the builder to bring the finished lot price down by nearly 40 percent. If this allows houses to be sold at a price that more closely matches the resale market in the area, the higher density project will get built, but the project based on existing zoning will not.
### Table 2

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<thead>
<tr>
<th>Cost Per Lot at 4 units</th>
<th>Cost Per Lot at 7 units</th>
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<td><strong>Stormwater</strong></td>
<td>31,790</td>
</tr>
<tr>
<td><strong>Sewer</strong></td>
<td>9,382</td>
</tr>
<tr>
<td><strong>Water</strong></td>
<td>11,087</td>
</tr>
<tr>
<td><strong>Road Improvements</strong></td>
<td>18,540</td>
</tr>
<tr>
<td><strong>Franchise Utilities</strong></td>
<td>9,917</td>
</tr>
<tr>
<td><strong>Development cost per lot</strong></td>
<td><strong>$160,414</strong></td>
</tr>
</tbody>
</table>

### How to do it

Local governments need to understand that infill development will not result in homes just like the ones in the neighborhood. Times and tastes change. The key is allowing builders to develop projects in small infill settings that are themselves coherent mini-neighborhoods, and also fit into the surroundings. The best way to accomplish this is permitting small lots, clustering, townhouses and other building types that allow a development to reach a critical mass of units, and give those units a strong relationship to one another.

Threshold Housing’s SeaTac demonstration project is a good example. The seven-unit plan, shown in Figure 3, clusters the homes around a common green, with a narrow loop road and parking in the rear. The houses themselves would be of similar size to those in the existing neighborhood, but have a strong relationship to each other.

The more conventional four-unit configuration, conforming to current zoning and development standards, is shown in Figure 4. The zoning would allow four units on the 0.7 acres, and the logical access would be a central road with a cul-de-sac. The central road weakens the homes’ relationship to each other, as does the emphasis on back yards. If a spec builder did the project, the homes would have to be larger and higher priced to match the land development costs (as shown in Figure 2). If the lots were sold to individuals, almost anything could get built.

The seven-unit project is higher density than the zoning would allow, but it solves several marketing problems. First, the clustering provides a sense of cohesion. Second, the units would be appropriate for several demographic groups that would find the neighborhood attractive. Third, the prices would more closely match those prevailing in the area.
Responsibilities

**Local government.** Local governments should undertake market studies (see Essential # 6) to understand what market segments would find infill settings in their community attractive. They then need to work with builders on necessary changes to plans, zoning and development standards to allow projects to be built that meet that demand (See Essential #9)

**Housing Industry.** Builders should work closely with local governments to help them identify regulatory changes and investments that would improve the marketability of infill sites and ensure that those sites receive quality development.

**Essential #6:**
**Identify market demand and plan to meet it**

The for-profit housing industry is driven completely by demand. “Build it and they will come” does not work. Local governments need to understand the demand in their communities and adjust their plans to accommodate that demand.

**Why it matters**

In every part of the housing industry builders will produce only that which they have a high degree of certainty will be bought or rented in a short timeframe. Local and regional planning plays only a regulatory role in this process: plans define what builders can and cannot do, but provide little guidance about what they should do within the envelopes they are given.
The Growth Management Act requires counties to accommodate population, and counties, in turn allocate this population to various jurisdictions. This exercise, however, does not tell the housing industry anything very useful. People live in specific types of homes, not in “units.” Builders meet the needs of households of all shapes and sizes and incomes, rather than just accommodating bodies. If plans happen to be consistent with market demand, then the plan will be accomplished. But if they are not consistent, the needs, desires and resources of customers will win every time.

Data emerging from the first ten years of growth management show the result of inconsistencies between plans and markets. Half way into a 20-year planning horizon, King County as a whole had met just about 50 percent of its target. But looking at individual jurisdictions, they range from four percent of target to nearly 150 percent. Similarly, the total for housing in the twelve designated urban centers tracks closely with the target, but almost all of that development has taken place in four centers, with eight having seen little or no housing growth.

Local governments simply do not have powers of coercion or incentive sufficient to cause major shifts in housing demand patterns. Plans that do not recognize market demand risk going unfulfilled. While this situation may be politically attractive for slow-growth constituencies, it fails to meet the obligations of local governments to provide the housing necessary to meet growth projections (See Essential #1).

What it means

Since every household needs exactly one housing unit, overall demand is driven by household formation. This, in turn, is driven by two factors, each of which, over time, accounts for about half of new households in Washington:

**In-migration.** The movement of people is a factor both at a regional and local level. The relative strength of the economy will make the region attractive to people from elsewhere, although some will move here for less tangible reasons. Within the region, people will move to be closer to jobs, to find a more attractive neighborhood or to find a house they can afford.

**New household formation.** Young people form new households as they move out from their parents’ homes, from group situations or college. A divorce will often result in creation of a new household, at least for some period of time. Households can disappear also, through marriage, partnering, group formation, or moving in with relatives.

Each household that enters the marketplace, in turn, expresses itself through a series of values and needs. Among them:

**Location.** Proximity to jobs, retail, entertainment, healthcare, and services, as well as the quality of schools, safety and value are big features here. Also, while some people want a mixed neighborhood, others want to live in an area that emphasizes some demographic, whether that be families with children, single adults or seniors. Some people want the excitement of urban centers, while others seek the quiet of single family neighborhoods. And all homebuyers want locations that offer good long term investments.
Affordability and value. Housing values are typically better on the periphery and farther from major job centers. Some buyers will endure a longer commute time to get a larger, higher quality house and/or a larger lot for their money.

Size and configuration. Buyers and renters want choices that will allow them to meet their lifestyle needs while not paying for unwanted space or luxury. Number of bedrooms, bathrooms and garage spaces come into play. As space shrinks, buyers pay particular attention to the size and layout of family and formal spaces. Some buyers are fine with vinyl and laminate, while others demand marble and granite. Outside, the unit can be a flat or townhouse, or it can be on a lot ranging from as low as 2,000 square feet up to a quarter acre.

Stairways become an increasingly important consideration as the population ages. Many retirees and empty nesters looking for a new home for the long term will want single story houses or buildings with elevators. Figures 5 and 6 show two successful developments in the same market area, with the same density (about 20 units/acre), similar unit size and price. The difference, however, is stairs. Residents of the townhouses in Figure 5 will need to use stairs often, whereas residents of the “six-pac” condominiums in Figure 6 will live entirely on one level.

The successful builder knows how to put together combinations of location, configuration and value in order to meet the needs and desires of identifiable customers. The smart builder also knows that, even in the hottest market, buyers and renters have choices.

How to do it

Homebuilders use market research to decide what to build on a specific site or in a large masterplanned community. Local governments can use the same techniques to get a sense of what types of housing would meet demand in their community. Several cities in the region have done such studies, and the Economic Development Council of Seattle and King County commissioned a study that covered 13 cities in King County.
The city, along with representatives of the homebuilding and residential real estate industries, can use these projections to help determine two things:

**Demand that cannot be met.** What parts of the identified demand cannot be satisfied under the city’s current comprehensive plans, zoning, regulations and development standards?

**Plan features for which there is no demand.** What sorts of housing called for in the city’s comprehensive plan cannot be tied to identifiable demand?

With this research in hand, the city should revisit the housing elements of its comprehensive plan to ensure that they will promote housing development that meets both the vision of the city and the needs of identifiable future residents.

**Responsibilities**

**Local government and the housing industry.** The market study should be commissioned by the city with the close cooperation of homebuilders and real estate professionals familiar with the market area.
Design Essentials. Using infill sites to meet the needs of emerging market segments requires different approaches to site and home design.

**Essential #7:**
**Design sites for livability and functionality**

To achieve both livability and functionality, higher density infill sites must be designed with great care and imagination. The old rules of subdivisions do not apply.

**Why it matters**

When laying out the site for a large, conventional subdivision, planners and engineers have a great deal of latitude. They have lots of land to work with and can use the natural features and topography as a starting point. They can configure roads to provide ample parking and efficient underground utility layouts. Unusable pieces of land can become community open space, and less attractive low-lying areas become stormwater detention ponds.

Laying out a high density infill development, on the other hand, introduces constraints at every turn. Trying to meet development standards intended for large conventional subdivisions can result in inefficient use of land and unappealing layouts with more pavement than anything else. Just shrinking lot sizes without paying attention to building relationships and open space will severely affect livability.

Good site design also affects the degree to which the new development fits harmoniously with the existing development. A well designed infill site complements the surrounding neighborhood while establishing its own distinct sense of place. (See Essential #5) A poorly designed infill site, by contrast, becomes an awkward appendage with no internal coherence and no connection to its surroundings.

Site planning on infill parcels begins with the recognition of the market for the units. People who live in compact infill developments have made a choice to get away from the large yards and spacious layouts of conventional subdivisions. They will accept a closer relationship with their neighbors and will trade private space for public space. They will likely own fewer cars.

Promoting innovative site design can also be a defensive strategy for a community. A risk in holding infill to the existing zoning and development standards is that the resulting development will be haphazard and unattractive. In lower priced markets a handful of lots from a short plat are more likely to be sold to individuals than to spec homebuilders, and those individuals will build whatever they can afford, without regard to how it fits into the neighborhood. Individuals do not face the same financing constraints as spec builders, and can put an inexpensive house on a relatively expensive lot. It is not uncommon to see a scattering of manufactured homes in the middle of a neighborhood of 1950s era ramblers.
What it means

Elements of site design that must be considered carefully include:

**Density and lot size.** Development of many infill sites, especially smaller ones, will be more successful at higher densities. (See Essentials #3, #4, #5) Creative site planning does, however, get away from specific lot sizes. Clustering and the emphasis on common open space and common area maintenance leads to very small lot sizes and larger common areas (See Figure 3)

**Access** Site planning usually begins with the question of how cars, pedestrians and especially emergency vehicles will get to each unit. The conventional layout of front-loaded garages on wide roads ending in cul-de-sacs is functional and economical, but in its shrunken form is awkward. Two alternatives, alleys and auto courts, move garage entrances off the main streetscape. (See Figures 7 and 8)

**Parking.** Conventional subdivisions provide ample exterior parking on driveway aprons and at the curbs of wide streets. Small lot and townhouse developments lose most of this parking. Parking may be prohibited on narrow streets, so separate guest parking areas must be established.

**Private open space.** Site design must ensure that small private open spaces are truly private. One solution places private decks or patios between units (with use easements) with windows minimized on the neighbor’s unit.

**Public open space.** In compact infill development the best use of open space is often to pull most of it into one large common space. This can be done by clustering the units or moving them to the edge of the property. Access and parking shift to the rear or, in the case of some cottage housing developments, away from the units. (See Figure 9)

**Separations and setbacks.** The application of large setbacks often results in the creation of space that has little use. Useless space can perhaps be justified on a large lot where it acts as a buffer, but not within a compact infill development where every square foot counts. When units are already quite close together, being another two feet closer will not affect the functionality of the unit, while adding the two feet from each unit to common open space will make a difference in the livability of the entire project. Separations and setbacks can be reduced to the minimum required for life-safety and maneuverability of vehicles.

**How to do it**

Most jurisdictions have development standards that preclude the kinds of innovative site design elements that make compact developments livable and functional. Those codes need to be adjusted. (See Essential #9). Before diving into a code rewrite, however, cities should:

**Examine successes.** An impressive array of examples of innovative site design have emerged in the region over the past 15 years or so. These developments, ranging from small infill sites to elements of large masterplanned communities, provide excellent illustrations of what works. Developers can see that the projects were financially successful, while local officials can see how they have resulted in popular, livable communities with rising home values.
Autocourts move garages off the street and create a semi-private hardscaped open space. Attaching units at garages improves privacy.

Alleys allow two-car garages on narrow lots with a streetscape featuring front porches instead of garage doors.

By separating parking from units and moving it to the alley, this nine-unit project gains a central courtyard from land that otherwise would have been used for garage access.
Understand local conditions. Just as market preferences vary across the region, site design elements will vary. Local jurisdictions should work with local builders to understand what features of site design are important in their market. Code changes that would be helpful in one market may be harmful in another.

Manage internal politics. Important features of site design are overseen by different functional areas of local government. Planning departments look at overall design concepts, public works departments govern street standards, utility placements and stormwater systems, while fire departments have strict standards for access. Managing code rewrites involving all these players requires strong leadership from mayors, city managers and city councils. (See Essential #9)

Responsibilities

Local government. Local jurisdictions will be responsible for rewriting development codes. This will involve several city departments. In cases where utility or fire districts operate within cities, these governmental units must become involved. (See Essentials #9 and #10)

Housing industry. The housing industry, especially those consultants involved in marketing, design and site engineering, must work closely with local governments to help them develop standards that provide incentives for attractive, innovative site design.

Essential #8: Put aside old stock plans and start over

House plans intended for large conventional subdivisions will not work well in infill and higher density settings. Builders should use new designs intended for the different look, feel and functionality of infill developments.

Why it matters

A builders first instinct often is to use plans that have worked well in the past. Much of success in the homebuilding industry comes from leveraging experience and repeating efforts that got positive results. Customer tastes and preferences change slowly, so a design that proved popular last year will likely prove popular again. Moreover, experience with a design makes it easier to estimate construction costs and timeframes and to price the product correctly.

When moving to small lot and infill situations, however, this temptation should be resisted. Houses designed for larger lots and to be surrounded by similar houses cannot always be placed gracefully in infill settings, especially on smaller lots. The scale will usually be out of proportion to existing homes in the neighborhood, and many contemporary design features will seem jarring when seen in older surroundings.

Additionally, the market for infill homes will often not be the same as the market for homes in subdivisions on the periphery (see Essentials #5 and #6), so the homes should have functional differences. Buyers from the empty-nester/retiree market will want to use spaces differently.
from the child-oriented move-up buyer on the periphery. Because of the higher cost of infill development, builders may need to strip out some expensive design features they can offer in outlying areas.

**What it means**

Creating house designs that will fit well into infill settings does not mean just imitating the surroundings. Some local vernacular is not worth copying! Builders should, however, pay attention to some important design considerations:

**Quantity vs. quality of space.** In the middle range of the market, quality and quantity of space can be traded off. Figure 10 shows where various housing types might be found. The circled types tend to be the most promising candidates for infill in existing neighborhoods, and thorough market research will show which of them will work best in a given area.

![Diagram showing quality vs. quantity of space](image-url)
**Garages.** Front-loaded garages are very efficient, but often not very attractive. As lots and houses become narrower, the “wall of garage doors” becomes even more noticeable. With townhouses, garage doors can dominate the entire ground floor. If other access options (see Essential # 7) cannot be used and the development must have front-loading, one solution is incorporate tandem parking (two cars, front-to back behind a single garage door). See Figure 12. Market acceptance of tandem parking varies, but builders should consider it.

**Privacy.** Research has shown that privacy is a very important value when selecting a home. As homes become closer together this becomes an even bigger concern. A house cannot be considered in isolation, but must be designed in relation to the houses on all sides. Placement of windows should acknowledge what can be seen from them and into them. Patios and decks should offer some measure of privacy if, in fact, they are intended as private open space. Where private spaces join public spaces there should be an obvious dividing line, such as a change in elevation, a fence or plantings.

**Bedrooms and bathrooms.** The number of bedrooms and bathrooms depends entirely on the target market. Young families and extended families will place a premium on the number of private spaces, and so will want more bedrooms, even if they are small. Empty nesters and seniors may opt for fewer, larger bedrooms.

**How to do it**

Design practices have already begun to change. A growing number of successful infill and small lot developments provide builders with examples of good design. As architects in the region become more familiar with the challenges of infill and small lots, they can produce designs applicable to these settings. Market researchers now have over a decade of experience to guide builders toward meeting the needs of various market segments within the constraints of infill sites.

The bigger challenge is for local governments to resist the temptation to legislate design in order to promote certain specific outcomes. A successful development represents a combination of location, market, design and site. These variables will not all be replicated identically anywhere, so expecting builders to replicate a specific development is not realistic.

Local governments should be very cautious about extending regulation beyond the usual building envelope defined by zoning. Prescriptive design requirements frustrate builders and can lead to perverse results. A carefully-circumscribed administrative design review process allows for
input into site design, but even this should not be used to dictate the design of individual detached units.

**Responsibilities**

**Local government.** Local governments need to work with the building industry to develop a sensible regulatory framework that promotes good design while not imposing additional costs (see Essentials #9 and #10).

**Housing industry.** Builders need to take responsibility for using appropriate designs for infill and higher density settings. Since this is the wave of the future, builders will have to adjust their business practices eventually, so they should explore new designs at the earliest opportunity.
Regulatory Essentials. Making the best use of infill sites requires flexible regulations and cooperative processes, backed by committed leadership and staff.

**Essential #9:**
**Write new development codes that promote good site and home design**

Most approaches to housing innovation are difficult or impossible under current zoning and development codes that underlie infill sites. Jurisdictions need to write new codes that clearly outline how builders can achieve GMA density goals and make the best use of infill opportunities.

**Why it matters**

Zoning and development codes in most jurisdictions promote two kinds of housing: low density single family neighborhoods and moderate-to-high density multi-family complexes. The innovative housing that will help jurisdictions meet changing market needs and GMA goals, however, lies between these two extremes (see Figure 1), and existing codes discourage or prohibit it.

Examples of innovative housing can be found across the region, but few were built as outright permitted uses under existing codes. Most market rate innovative housing in the region has come from two sources: demonstration projects that provided one-time exceptions to codes, and large subdivisions and masterplanned communities where developers can afford to undertake major land use changes. For innovation to flourish within the for-profit market in small infill settings with existing zoning, alternative housing types need to be clearly spelled out in broadly applicable regulations.

Getting codes to encourage innovation in infill housing requires not just a tweak here or there, but rather some very different approaches to regulation. Because each site is unique, good infill development requires the flexibility to allow creative solutions. This means regulations will be less prescriptive and more performance based. This, in turn, will require new processes that promote both of the sometimes contradictory objectives of flexibility and predictability. (See Essential #10)

Because there is less wiggle room in higher density infill development, contradictions and inconsistencies in codes and development standards become much more glaring. Even though codes and standards may be administered by different parts of local government, they cannot be drafted in isolation from one another with no consideration of their impacts.
What it means

New codes to encourage infill and higher density development begin by changing a basic assumption about land. Most current codes assume that a proposed development has ample land to dedicate to lot size, setbacks, rights of way and parking, so they provide generously for these features. Successful infill development, on the other hand, tries to make the most efficient use of land, allowing each use only as much land as it absolutely needs. To move toward a different approach to land, local governments need to address:

Density and lot sizes. Most infill parcels will fall under the underlying zoning that applies to their surroundings, and that zoning will define densities, lot sizes or both. New codes should provide opportunities to develop higher density projects that are consistent with community goals. Zoning or special classifications for these projects can define density but should avoid minimum lot sizes so as to encourage creative site design. Density limits should be set to encourage the housing types identified in market studies for the area. (See Essential # 6)

Setbacks, separations and heights. Setbacks and separations should be minimized to allow the site plan to maximize community open space. Units will likely have either a front or rear yard, but perhaps not both. Jurisdictions should avoid cutting back heights or imposing upper floor area limitations, since these restrictions inhibit the builder from making the most of a small footprint.

Access and rights of way. To make the most of infill sites, most jurisdictions will need to completely re-think the size and layout of streets and sidewalks, and the placement of driveways and parking. (See Essentials #7) These developments can work very well with narrower roads and creative pedestrian facilities. Public open space can eliminate the need for planting strips. Fire departments need to consider alternatives to large cul-de-sacs for maneuvering equipment.

Parking. In higher density projects parking becomes a major issue. More than in conventional subdivisions, parking is directly traded off with open space. The need for guest parking does not go away, but it cannot necessarily be placed on driveway aprons or on-street. Planners should consider the market for infill developments when setting parking requirements.

As an example of the new thinking that must accompany new codes, consider the “Thanksgiving problem.” Rather than setting parking requirements to meet the needs of large numbers of guests on just a few days of the year such as Thanksgiving, jurisdictions should consider allowing off-site parking arrangements as a way to meet high parking demand that occurs very infrequently.

How to do it

Code development is never an easy process. For it to succeed in encouraging innovative housing in infill settings, the code rewrite should feature:

Leadership from the top. Code development will involve multiple departments within a jurisdiction, so for the process to run smoothly, it must have strong leadership from the Council, Planning Commission, Mayor and/or city manager. Requiring departments to resolve conflicts among themselves can yield sub-optimal results.
**Focus on economics.** Changing just one code feature or another may not alter the economics of a project at all, and, in fact, might make it worse. To encourage a certain type of housing the code development process needs to address all of the variables that go into making such development pencil out.

**Focus on the market.** Code development efforts should give priority to housing types that have the highest likelihood of meeting an identified need, and, therefore, getting built. Participants should avoid letting their own personal preferences influence their interpretation of market forces. Even if a certain product seems unattractive to decisionmakers, it must be attractive to someone if builders say they want to develop it.

**Focus on performance.** Codes for infill should use a performance-based approach that allows the builder the flexibility to make the best use of the site. Performance goals must assume the commercial feasibility of the project and aim to maximize housing production and promote affordability.

**Clarity of goals and parameters.** Flexibility should be allowed within a clearly defined set of community goals and planning parameters. The builder should have significant discretion about what to do within an envelope, but should have no questions about what the outer edges of the envelope look like and what it takes to change them.

**Consistency among jurisdictions.** Development of new codes for innovative infill should not provide an opportunity for further inconsistencies among codes throughout the region. Codes should be as similar as possible, especially within market areas where similar projects could be built in several cities.

**Responsibilities**

**State government.** In many cases, local codes are written in response to state regulations. The state should look for code changes that will foster innovative infill, and look for opportunities to bring consistency to local code development efforts.

**Local government.** While each jurisdiction will be responsible for its own codes, they should work together to develop common approaches that will serve as starting points. Cities will need to work closely with utility and fire districts. Counties should ensure that codes in annexation areas are consistent with those in adjacent cities.

**Housing industry.** The housing industry must take an active role in the code development process. It will take more than just token participation by builders, bankers, architects and realtors for local officials to gain a sophisticated grasp of how code changes can encourage certain types of development. Experts representing various important niches of the market should participate.
Essential #10: Develop processes that promote rather than penalize innovation and infill

By requiring innovative projects to jump through far more hoops than conventional projects, local governments may be discouraging rather than encouraging innovation. An experienced builder should find that the costs of permitting an innovative project do not cancel out the financial benefit of innovation.

Why it matters

Most permitting agencies are set up to process applications that meet a long list of land use and building code requirements. The agency evaluates the plans against codes and sets forth any required changes before issuing a permit. In many jurisdictions, applications are handed sequentially from one functional area to another, with separate evaluations for land use, sensitive areas, roads, utilities, stormwater, buildings, etc.

This type of processing does not encourage innovation and penalizes projects that do not follow codes exactly. It is much easier to measure a feature, such as road width, against a specific code requirement than to determine if the overall road layout of an entire subdivision will function according to a performance standard.

As a result, innovative projects tend to take longer to process and require more up-front costs. For large projects, the additional time and trouble is worth it, and the costs can be spread over a large number of units. For small, infill projects, however, the added time and cost become much larger factors and can make the difference between taking the innovative option versus the more conventional option. (see Essential #3)

Most of the housing innovation in the region has come through either large development companies or non-profit developers, both of which have staff that can participate in extensive public processes. But for innovative infill to flourish it must become attractive to small and medium sized builders, and these firms cannot withstand open-ended timeframes and do not have the resources to staff extensive processes.

What it means

To avoid discouraging innovative developments, processes should feature:

Outright zoning. Ideally, innovative housing types would be allowed outright as part of zoning and development codes. This may come through actual rezones of areas that would be suitable for higher density infill projects, or through a “floating zone” or an overlay that allows certain types of projects under defined circumstances. If an innovative project is allowed under the zoning code or is determined to be allowed under an overlay, processing would not be substantially different from any other project.
Conditional use. Under conditional use, the underlying zoning remains in place, but alternative uses are allowed if they meet certain conditions. These conditions should be clear, simple and objective, and the process to determine if the project meets them should be administrative.

Incentives and bonuses. If an innovative use cannot be allowed outright or by simple conditional use, and will be subject to more extensive processes, the cost can be mitigated by offering bonuses or incentives that enhance the economics of the project.

Reasonable thresholds. Small infill projects tend to have a minimal impact on established neighborhoods and should not be subject to the same requirements as large projects that will cast a bigger shadow. The allowed SEPA threshold of 20 units can serve as a reasonable starting point for determining other process thresholds.

Two track process. Jurisdictions using performance-based codes for innovative projects should have two separate tracks for processing applications. One track addresses projects that follow existing codes, and it should feature fast, predictable processing. Another track addresses applications under performance-based codes and that require interpretation and discretion. Under the performance-based track, timeframes cannot be as predictable, but the outcome will be worth it to the builder.

How to do it

Like code reviews, changes to permit processes require strong leadership from the top. If a jurisdiction has made a commitment to meeting its GMA goals through housing innovation (see Essential # 1) that sense of priority must become part of the internal culture of the permitting agency. Attitude is extremely important when dealing with unusual applications that involve interpretation and discretion. A jurisdiction set up to embrace innovation will have:

Dedicated project managers. With unique projects, one individual should be assigned to ensure that the processing of the application moves smoothly through all departments. This project manager should have sufficient authority to make sure the city’s priorities for innovative housing are honored among all departments.

Trained and dedicated staff. Jurisdictions using performance-based codes for innovative infill projects should ensure that certain staff receive training in reviewing those applications and that applications are routed to those staff.

Inter-departmental cooperation. Staff dealing with functional areas that intersect need mechanisms to work together to understand projects and arrive at the most creative solutions.

Inter-jurisdictional cooperation. Separate special districts – water, sewer, fire – need to be part of the processing team from the beginning, and should be encouraged to adapt their own codes and requirements to promote innovative infill housing.

Open communication with applicant. Applications for unusual projects are more likely to have minor problems. Permit staff should be able to resolve minor errors and omissions in the application outside of the formal correction process.
Responsibilities

**Local government.** Like code drafting, processing changes are primarily the responsibility of local governments. They must begin with clear statements of policy from leadership that emphasize the importance of promoting innovative, high quality infill housing. From there the mayor or city manager can build internal cultures of departments and the interdepartmental cooperation needed for smooth processing of unusual applications.

**Housing industry.** When submitting applications for unusual projects, developers and builders need to take extra care that materials are complete and clear. If the application seeks a performance-based evaluation, it should include sufficient research to indicate that it will meet the city’s performance standards.

**Government and industry working together.** Processing innovative infill projects requires more than the usual amount of interaction between the builder and staff, and will likely require some public process. These added layers of activity should be as efficient as possible, respecting the time of all involved.
The final essential
Recognize the magnitude of the challenge

With the GMA requirement to fill in the spaces, we have bitten off a big mouthful.

The development patterns that have characterized our region for the past 50 years – moving ever outward with low density residential and commercial development – have resulted in traffic congestion and many areas that are unattractive and inefficient. But we cannot ignore the fact that for most people, that pattern has worked well. We have gotten lots of inexpensive new housing with ample private and public spaces, while leaving existing neighborhoods alone to mature in their own particular way.

The sprawl of one decade becomes the cherished neighborhood of the next decades.

So when, as a matter of public policy, we decide to reverse this pattern, slow the outward growth and fill in the spaces left behind, we are messing with something that has benefited most residents in the region. People may not like the overall result of sprawl, but they sure like the policies that led to it. Residents of existing neighborhoods want those areas to be left alone, even when they seem undistinguished or even shabby. People moving to new areas on the periphery delight in their shiny new homes and neighborhoods, and set to work immediately to establish the formal and informal institutions that make community.

This pattern has also worked very well for local governments and the housing industry. In established areas residents ask their local governments to protect their neighborhoods from change. On the periphery, where new development is more a fact of life, governments feel less pressure to stop it, and developers find a more receptive environment. On the periphery builders also find large undisturbed tracts of land they can work with economically to create new, cohesive neighborhoods.

So, on the face of it, a shift toward infill development requires irrational behavior on the part of both local governments and the homebuilding industry. They are being asked to turn away from success and act in ways seemingly contrary to their interests in order to deal with a phenomenon – sprawl – that is, at best, a generalized concern. But local governments and the housing industry have no reason to act against their interests (perceived or real), so if we attempt to impose a new vision strictly through regulation, we will fail badly. The GMA does not have enough coercive power to compel local governments to accept types of development they really do not want, and it has no power at all to compel homebuilders to undertake non-economic projects.

The result of failed strategies will be housing shortages, high prices and long commutes, a troublesome outcome with no natural feedback mechanism to correct it. Builders will just build fewer, more expensive homes or move to adjacent counties. From a political perspective, the people shut out of the market cannot be identified by anyone as voting constituents, leaving them disenfranchised.

So how do we get out of this mess? We institute aggressive, market-tested infill strategies that employ innovative housing types at mid-level densities to serve emerging markets of small
households. The Ten Essentials point to the many places that governments and the housing industry will have to work together and make adjustments.

In the public sphere, a fine line often separates leadership and political suicide. In the marketplace, another fine line separates the vanguard of the market and insolvency. The authors of the GMA may not have known it at the time, but the future of housing in our region will happen close to these lines.
Appendix A -- Examples of medium-density housing

Following are examples of the sorts of medium-density housing that meet various market needs in infill settings. All of these projects have been built by medium to large commercial developers and have been financially successful. Most were built under exceptional planning or entitlement processes.

**Cottages at Poulsbo Place -- Poulsbo**

<table>
<thead>
<tr>
<th>Density</th>
<th>12 du/acre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit size</td>
<td>870 to 1265 sf</td>
</tr>
<tr>
<td>No. of units</td>
<td>45</td>
</tr>
<tr>
<td>Price range</td>
<td>$149,000 to $180,000</td>
</tr>
<tr>
<td>Builder</td>
<td>Security Properties</td>
</tr>
<tr>
<td>Year built</td>
<td>1999-2001</td>
</tr>
</tbody>
</table>

**Greenbrier – Woodinville**

<table>
<thead>
<tr>
<th>Lot size</th>
<th>Average 2000 sf</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit size</td>
<td>1,181 to 1,800 sf</td>
</tr>
<tr>
<td>No. of units</td>
<td>70 total, 50 market rate</td>
</tr>
<tr>
<td>Price range</td>
<td>$230,000, market rate units only</td>
</tr>
<tr>
<td>Builder</td>
<td>CamWest Development</td>
</tr>
<tr>
<td>Year built</td>
<td>2002 to present</td>
</tr>
</tbody>
</table>

**Savannah -- Bellevue**

<table>
<thead>
<tr>
<th>Lot size</th>
<th>4,000 sf</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit size</td>
<td>2,482 to 2,736 sf</td>
</tr>
<tr>
<td>No. of units</td>
<td>20</td>
</tr>
<tr>
<td>Price range</td>
<td>$324,000 to $380,000</td>
</tr>
<tr>
<td>Builder</td>
<td>Pan Terra Homes</td>
</tr>
<tr>
<td>Year built</td>
<td>1999</td>
</tr>
</tbody>
</table>
Riverview, The Reserve -- Kent

<table>
<thead>
<tr>
<th>Lot size</th>
<th>4,000 sf</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit size</td>
<td>1,250 to 1,724 sf</td>
</tr>
<tr>
<td>No. of units</td>
<td>55</td>
</tr>
<tr>
<td>Price range</td>
<td>$216,000 to $250,000</td>
</tr>
<tr>
<td>Builder</td>
<td>Polygon Northwest</td>
</tr>
<tr>
<td>Year built</td>
<td>2001</td>
</tr>
</tbody>
</table>

The Orchards, Cherrywood Lane -- Renton

<table>
<thead>
<tr>
<th>Lot size</th>
<th>4,000 sf</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit size</td>
<td>1,415 to 2,049 sf</td>
</tr>
<tr>
<td>No. of units</td>
<td>63</td>
</tr>
<tr>
<td>Price range</td>
<td>$185,000 to $243,000</td>
</tr>
<tr>
<td>Builder</td>
<td>Northward Development</td>
</tr>
<tr>
<td>Year built</td>
<td>1998</td>
</tr>
</tbody>
</table>

Compass Pointe – Redmond Ridge

<table>
<thead>
<tr>
<th>Density</th>
<th>20 du/acre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit size</td>
<td>1355 to 1788 sf</td>
</tr>
<tr>
<td>No. of units</td>
<td>72</td>
</tr>
<tr>
<td>Price range</td>
<td>$276,000 to $284,000</td>
</tr>
<tr>
<td>Builder</td>
<td>Carino Homes</td>
</tr>
<tr>
<td>Year built</td>
<td>2000</td>
</tr>
</tbody>
</table>

Taluswood -- Redmond

<table>
<thead>
<tr>
<th>Density</th>
<th>23 du/acre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit size</td>
<td>1100 to 1350 sf</td>
</tr>
<tr>
<td>No. of units</td>
<td>85</td>
</tr>
<tr>
<td>Price range</td>
<td>$214,000 to $250,000</td>
</tr>
<tr>
<td>Builder</td>
<td>Mosaic Homes</td>
</tr>
<tr>
<td>Year built</td>
<td>2000</td>
</tr>
</tbody>
</table>
Appendix B – Demand for medium-density housing

In 2002, The Economic Development Council of Seattle and King County commissioned a study of the five-year market demand for various types of housing in 13 cities in King County. The chart below shows the projected demand for the seven cities studied in South King County (Auburn, Kent, Federal Way, Renton, Tukwila, SeaTac, Burien) and the six cities studied in East King County (Kirkland, Bellevue, Redmond, Issaquah, Sammamish, Bothell).

What is most striking about these projections is the heavy demand for housing in all markets in the range of 10-25 units per acre – the mid-level density described in this report. This includes small lot detached houses, townhouses and six-pac condominiums. Most jurisdictions, however, have very little land zoned for these densities. Instead, they have most of their housing capacity wrapped up in low density single family zones and high density urban centers.

Housing Demand by Density in 13 King County Cities – 2002-2007

(Source: Economic Development Council of Seattle and King County)