A PATTERN LANGUAGE
FOR THE
LEWIS AND CLARK RANCH

BERK

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INTRODUCTION: A Vision for the Growth of West Richland

The Lewis and Clark Ranch site was annexed into the City of West Richland in 1983, and since then, the city's Comprehensive Plan has identified the site as a key direction for future growth. Over the years, plans and proposals for development and use on the ranch have varied. The city has committed to work with the current landowner (or any subsequent owner) to include parts of the ranch in areas planned for development, where extension of city infrastructure is logical, prudent, and financially feasible. The city leadership has recognized that the Lewis and Clark project is a remarkable opportunity to shape growth in a more livable pattern.

In 2022, a major landowner submitted applications to the City of West Richland to move forward with development in a part of the site. This action required the creation of a "subarea plan" for the entire site, as well as Comprehensive Plan amendments and environmental impact assessments. As part of that process, the City hired a team of consultants to complete a transportation system analysis, infrastructure analysis, historic resources analysis, and study of "critical areas" (environmentally sensitive elements), among other planning elements.

Perhaps most important, the City engaged in a public process with citizens to ask what *they* wanted to see for the growth of the city in this area. The team conducted open workshops and collaborative design sessions (called "charrettes") as well as surveys, including a "visual preference survey" that allowed citizens to identify their preferred type of growth. These preferences fed into the layout of the subarea plan, as well as other planning elements.

The citizens made it clear that they wanted the Lewis and Clark Ranch to deliver on its promise of a better approach to growth. In particular, they wanted a different *pattern* of growth – more like traditional walkable cities and towns, and less like conventional "modern" development where people's daily needs are only accessible by driving. They selected a number of images that illustrated narrower, more pedestrian-friendly streets and buildings in a more gentle, dispersed pattern, rather than large, concentrated multi-lane streets and intersections. They also favored smaller dispersed neighborhood centers with amenities and parks, rather than centralized shopping areas surrounded by large parking lots.

These preferences will eventually feed into the final zoning code and land use regulations for the project. Before these are completed, however, the citizens, Applicant, and City staff need to agree on the broader vision that will inform these specific codes and regulations. This is where the "pattern language" – the document before you – provides the necessary guidance.[1]

The background of pattern languages – what they are, why they are helpful, and how they are used – is described in more detail in Appendix One. The essential point is that the pattern language is not the code, but rather the shared vision that leads to the code. That vision includes specific desired features of the development, including types of streets, buildings and parks. These features were identified in the public meetings and surveys, and then translated into the "patterns" – the specific features that will eventually go into the plan and zoning code.

In that sense, the pattern language serves as a kind of bridge: between the vision of the community, and the technical language of the zoning code.

[1] Patterns with three asterisks are drawn directly from the Lewis and Clark Ranch Visual Preference Survey. All patterns reflect public comment as well as professional recommendations and best practice. For more information, visit https://www.westrichland.org/274/Lewis-Clark-Ranch.

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Network of Parks. Provide a chain of park spaces including pocket parks, small parks, and larger community parks and playing fields, as well as pedestrian greenways onto which houses face without streets in front. 28

Civic Edge. The edges of open spaces are not lined with the private backs of homes, but with civic spaces including streets, lanes, pathways, and fronts of buildings. 30

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Commercial Main Street. Shopping buildings are aligned with traditional main streets, not set back into "strip centers". 56

Bike Network. The neighborhoods provide bike connectivity either through low-speed main streets, or through parallel streets that accommodate slow bike traffic. In some off-street cases, there may be separate bike pathways, sometimes combined with walking pathways. 58

On-Street Parking. In all but the lowest-density areas, streets accommodate parking along their edges. This makes a safer and more pedestrian-friendly street, supports retail main street shops with parking on the street, and reduces the need for larger parking lots. 60

Terminated and Deflected Vistas. Make view corridors that line up with nearby or distant monuments. Nearby monuments can be buildings, sculptures, fountains, or specimen trees. Distant vistas can include mountains and river corridors. Create deflected vistas, buildings seen at angles or curves in the streets. Design those buildings especially well to enhance their appearance, and also to protect from headlight glare. 61

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Traditional Pedestrian-Friendly Buildings. There are ornamental details and patterns that are human-scale and pleasing up close to those walking by. Large blank panels and stripped-down boxy forms are discouraged. 64

Building in Front, Parking in Rear. Buildings in commercial areas align with the edges of sidewalks, creating attractive pedestrian zones. 67

Active Building Fronts. There is a minimum percentage of window area on the fronts of buildings (at least 40%). The fronts also include entry doors from the sidewalks to all businesses. 68

Building Step-Backs. Where a building is taller than two stories, there is a step-back of at least eight feet above the second story. 71

Different Building Groups on the Block. Where one large building covers the block or the majority of the block, it is designed as a series of smaller buildings, each with their own character. 73

Mix of Smaller Industrial "MakerSpaces". Rather than large warehouse-size industrial buildings, there are smaller "flex" buildings and spaces for creative fabrication, especially for small businesses and startups. 75

VI. Building Type and Placement - Residential

Housing Choice. Provide many different sizes and formats of homes, from small apartments to large family homes, and many types in the middle. 78

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Garages in Rear (Or Front if Set 10′ Behind Facades). The fronts of houses are not dominated by garages. In some cases, garages may be on alleys in the backs of houses. In other cases with garages facing the streets, garage fronts will be no less than 20 feet behind the front façades of the houses. 83

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I. REGIONAL FRAMEWORK

REGIONAL CONNECTIVITY

…Within the POLYCENTRIC REGION, establish neighborhood centers well connected to the DISPERSED STREET NETWORK. Establish pedestrian zones around a principal street network of ¼ mile radius or a 400M THROUGH STREET NETWORK.

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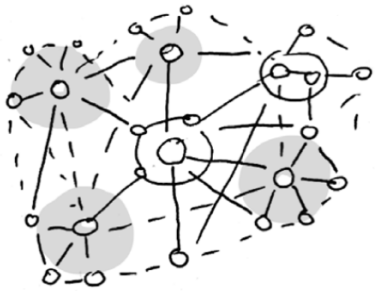
<u>Problem-statement:</u> Many new developments are inward-turning and isolated from their surroundings. This can limit the ability to walk, bike, and interact with neighbors, and it tends to force excessive driving.[1] The Lewis and Clark Ranch, which has limited opportunities for connectivity at its perimeter, will need to maximize the regional connectivity wherever possible.

<u>Discussion:</u> The Lewis and Clark site does have challenges with connectivity to its surrounding areas, but can draw from a number of potential connection points, including Twin Bridges, DeMoss, Ruppert Road, Van Giesen, Keene, and other existing streets. In addition, there may be an opportunity to build a future bridge across the Yakima River in the future, connecting to Highways 240 , and to Hanford Reservation as well as other destinations to the west and southwest.

<u>Therefore:</u> Provide as many connections as possible from Twin Bridges, DeMoss, Ruppert Road, Van Giesen, Keene, Paradise, and other surrounding street systems. Work to identify and plan a bridge crossing to the northwest .

The regional connectivity point at the western edge of Lewis and Clark Ranch, at Ruppert Road and the Yakima River, leading to the Red Mountain winery area.



Connected region of many centers

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Take advantage of the bypass corridor by creating the option for a bus rapid transit line with a hike-and-bike trail – the CANAL AND HABITAT NETWORK. Develop pedestrian-friendly street connections to provide SAFE ROUTES TO SCHOOL…

[1] There is a great deal of literature on the importance of regional connectivity for transportation and ecological benefit, and best practices for mapping regional connectivity. See for example Beier, P., Spencer, W., Baldwin, R. F., & McRAE, B. H. (2011). Toward best practices for developing regional connectivity maps. *Conservation Biology, 25*(5), 879-892.

DISPERSED STREET NETWORK***

… Promote REGIONAL CONNECTIVITY by allowing traffic to disperse throughout the urban area and not concentrate at choke points.

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Problem-statement: In most neighborhoods – including those within the Lewis and Clark Ranch – it is not necessary, or even desirable, to build super-wide, multi-lane arterials. These streets prevent the achievement of transportation choice, walkability, and community safety goals.

Discussion: The challenge for any transportation system is to provide smooth, reliable mobility. It was once thought that the only way to do that was to provide ever wider arterials. However, this model results in more people taking more trips by car, and paradoxically, it can increase traffic congestion and reduce mobility. The result is often an endless effort to widen roads, only to see them become congested again…

The answer is not to have wider roads, but to have a more dispersed street system, with smoother movement in many directions across it. Instead of concentrating automobile traffic in a few "choke points," it is better to provide many more paths to get around, and not only by car, but also by walking, bike and public transportation. In such a network, the vehicles can be more dispersed, with lower volume at any one point.

It's also important to provide destinations closer to where people live, so that they can easily walk to, say, a park, school or shop – or at least drive only a short distance. This means the trips that would otherwise go out onto the larger street network are "captured" within the neighborhood. The result is less congestion, smoother movement, less demand for automobile travel, and more cost savings – by individuals, and by the home buyers and taxpayers who have to pay for road projects.

The following street types are suitable for the Lewis and Clark Ranch:

Arterial: Five to three-lane with optional median and on-street parking. (Equivalent to a traditional "boulevard".) Design should provide an environment where walking, bicycling, using transit, and driving are equally convenient and should facilitate the boulevard's use as a public space. Design should start with the assumption that the busy nature of a boulevard is a positive factor and incorporate it to enhance the streetscape and setting. Sidewalks with bike lanes and planting strips. In commercial areas, planting strips are replaced with tree grates integrated with extended sidewalks.[2]

Collector: Two-lane, on-street parking. (Equivalent to a traditional "avenue".) Collectors provide concentrated pedestrian, bicycle, transit, and motor vehicle access from neighborhoods to neighborhood activity centers, and to arterials (or traditional boulevards) for onward travel. Design should provide an environment where walking, bicycling, using transit, and driving are equally convenient and facilitates the arerial's use as a public space. Bicycles travel within the traffic lanes which are posted at safe speeds.[3]

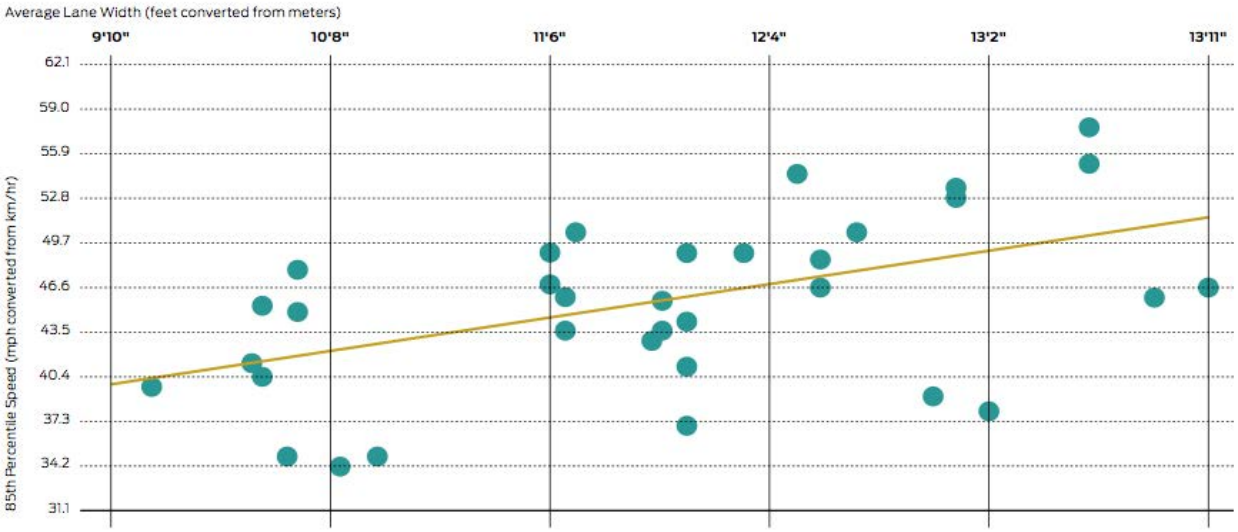
Local Street: Two-lane, or one-lane queueing street, with on-street parking on one or both sides. (Equivalent to "local street" in funding nomenclature.) Provides access to individual homes and businesses. Fire and other emergency access are provided via lanes at rear, and/or no-parking zones suitable for passing, and staging areas at fire hydrants. (To be reviewed and approved by Fire Marshal.) Bicycles travel within the traffic lanes which are posted at safe speeds. [4]

Lane: Provides rear access to rear of buildings and garages in neighborhood center or town center areas, and at rowhouses or apartments. Provides access for fire and other emergency vehicles. Can provide efficient distribution of utilities, and avoid visually disruptive transformers and pedestals in the streetscape.[5]

In adopting these sections, it should be noted that the lane widths should be carefully sized for appropriate and context-sensitive speeds. Research data shows that wider lanes are directly associated with greater rates of speeding – a direct threat to the life and safety of pedestrians including children. The following table shows the close association between lane widths and average vehicular speed:

[2] Source: City of Ashland, Oregon
[3] Source: City of Ashland, Oregon
[4] Source: City of Ashland, Oregon.
[5] Source: City of Ashland, Oregon

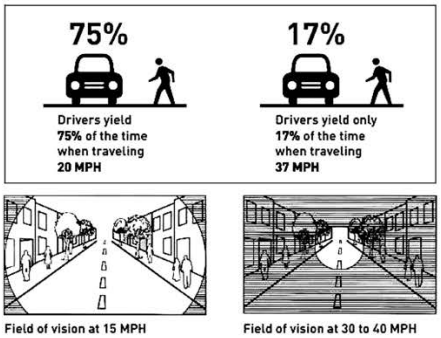
Wider travel lanes are correlated with higher vehicle speeds.

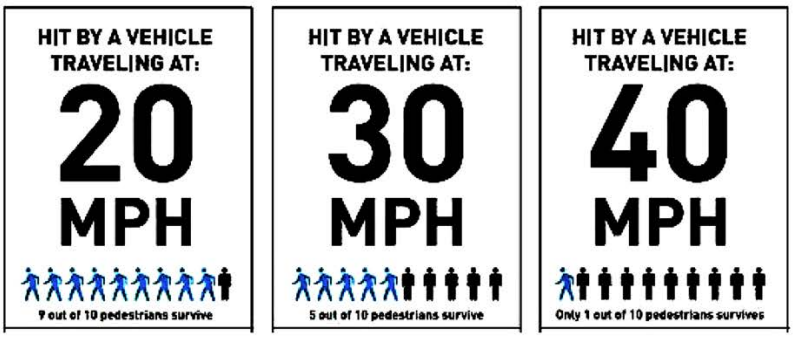


"As the width of the lane increased, the speed on the roadway increased... When lane widths are 1 m (3.3 ft) greater, speeds are predicted to be 15 km/h (9.4 mph) faster."

Chart source: Fitzpatrick, Kay, Paul Carlson, Marcus Brewer, and Mark Wooldridge. 2000. "Design Factors That Affect Driver Speed on Suburban Streets." *Transportation Research Record* 1751: 18–25.

In turn, there is a close correlation between vehicle speed and the likelihood of serious illness or death of pedestrians in a collision:





At 20 MPH, 75% of drivers yield to pedestrians in the right of way, according to research reported by the Seattle WA Department of Transportation. But at 37 MPH, just 17% yield. In large part, that's because the cone of vision is greatly reduced at higher speeds.

Furthermore, the frequency of death from collisions goes up dramatically with speed as well – only 10% survive at 40 MPH, whereas 90% survive at 20 MPH. Speed kills.

<u>Therefore:</u> Do not assume that wide arterials are needed for adequate mobility within the Lewis and Clark Ranch.[1] Instead, seek to develop a dispersed network of narrower two- or three-lane streets, with frequent enough spacing to provide fluid movement and bypasses around any obstacles – roughly 1/8 mile. Use up-to-date modeling methodologies that account for "induced demand" and "context-sensitive design". Design streets for fluid movement, but at relatively low speeds that are safe for families and children.

Roughly
¼ Mile

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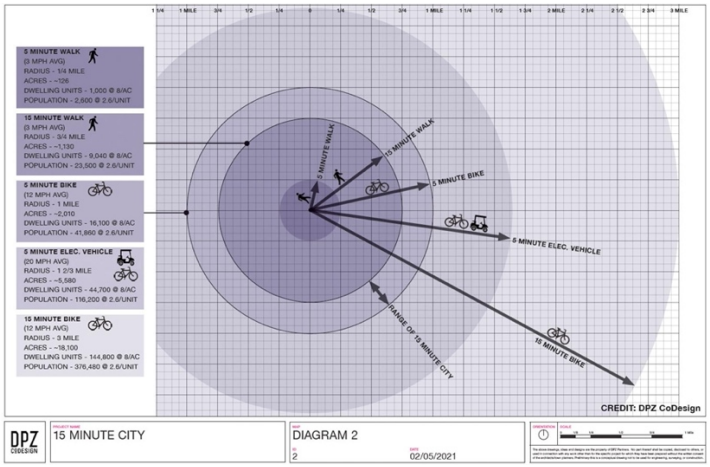
Promote smooth traffic flow with SMALL ROUNDABOUTS. Include a BIKE NETWORK as well as walking and public transportation routes, offering TRANSPORTATION CHOICE…

[1] There is very good recent research and guidance available on street design in the dispersed network model. See for example the National Association of City Transportation Officials, "Urban Street Design Guide," https://nacto.org/publication/urban-street-design-guide/streets/. Also see the Institute of Transportation Engineers' "Designing Walkable Thoroughfares: A Context-Sensitive Approach" at https://ecommerce.ite.org/IMIS/ItemDetail?iProductCode=RP-036A

FIVE-MINUTE NEIGHBORHOOD AND FIFTEEN-MINUTE CITY



…Within the REGIONAL CONNECTIVITY, plan the city and the neighborhood so that most trips – as many as possible – are short.

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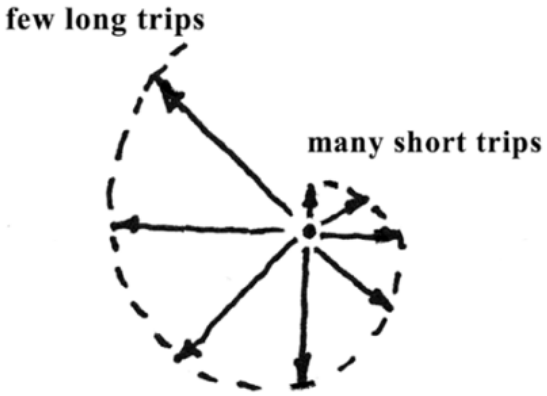
Problem-statement: Most of our daily trips need not be long. In the best neighborhoods, they are short and within walking distance.

Discussion: The most convenient, affordable and livable places allow easy access to daily destinations without having to drive long distances. At the same time, some long trips are worth taking more rarely – perhaps a few times a week or month.

Three necessary conditions give greater assurance that the average person will choose to walk rather than drive to their daily needs. Is the walk safe, convenient and attractive? Safety means safety both from crime and from dangerous driving, such fast moving vehicles and overly wide roads. Convenience refers to the distance and ease of routes to the destination. And an attractive walk means that the buildings, the people, the landscape and the scenery along the route is visually and socially pleasing.

The way this can be done is to distribute most of the routine destinations – parks, schools, churches, offices, quick shopping or dining locations – within the neighborhoods, and within walking range of most houses. Other destinations can be a bit farther away, and still others can be more remote – the places that we might need to go only once a week or several times a month.

The pattern of most people's routine trips looks like this:



In an optimal neighborhood spacing, we will tend to take many short trips, few long trips, and a medium number of medium-length trips. The many short trips can consist of quick shopping trips, trips to school or a close-by workplace, or a trip to the park or to see friends. These can be primarily walking trips, with perhaps a few bike or short driving trips too.

One of the most important trips is the quick trip to the grocery store – sometimes just a small grocery store, and sometimes just one or two items that we need on short notice. That need has been expressed as the "walk to the corner grocery for a quart of milk." The stores need not be large, but they should be within 5 minutes' walk, and they should have healthy food, including staples – not just "junk food". Some convenience stores are beginning to offer more of this kind of quality product.

Longer trips for other needs can occur by bike, or by public transportation. The longest trips might still occur by car (or by other modes) – perhaps to a specialty store or special event, or to see a medical specialist – but they need not happen on average more than a few times every month.

Therefore: Lay out the neighborhoods, and create the supportive mixed-use zoning, that will encourage a wide distribution of destinations that are, on average, close by to all homes. Plan for many small mixed-use centers, a few very large ones, and a medium number of middle-sized ones, spaced to provide the same range of distances from homes.

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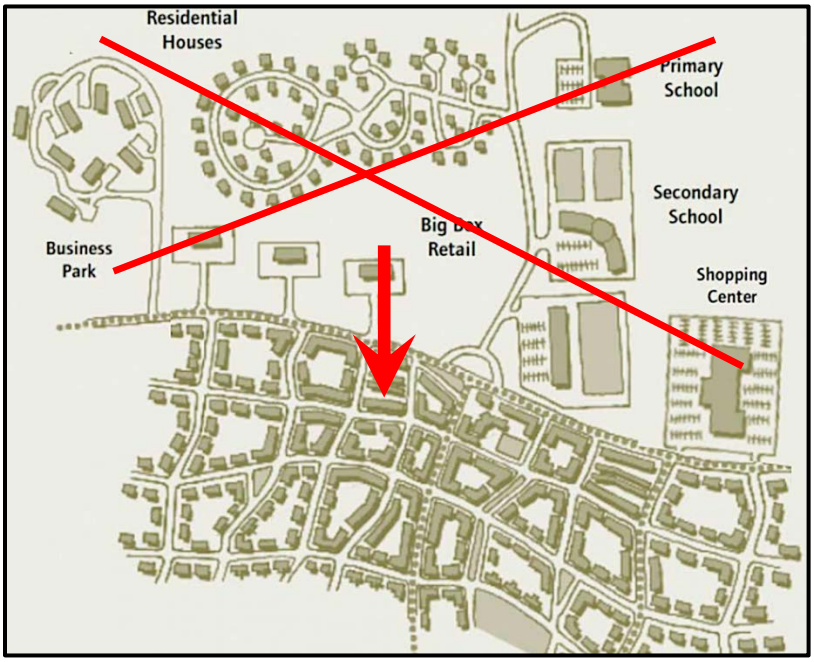
Plan the SCALES OF COMMUNITY to support activities and forms of interaction at all scales. Make sure there are SAFE ROUTES TO SCHOOL that are not too long and do not cross any dangerous streets...

Give people many nearby things to walk or bike to.

[1] A good discussion of the 15-minute city concept can be found here: https://en.wikipedia.org/wiki/15-minute_city

TRADITIONAL NEIGHBORHOOD STRUCTURE***



…Provide REGIONAL CONNECTIVITY with street connections at the perimeters, and new bridges where appropriate.

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Problem-statement: The most successful cities and towns through history have had a rough grid-like patterns of walkable streets, with a mix of uses distributed across them. But in the 20th century, we became far too reliant on the car – and on cities consisting of segregated, drive-only destinations.

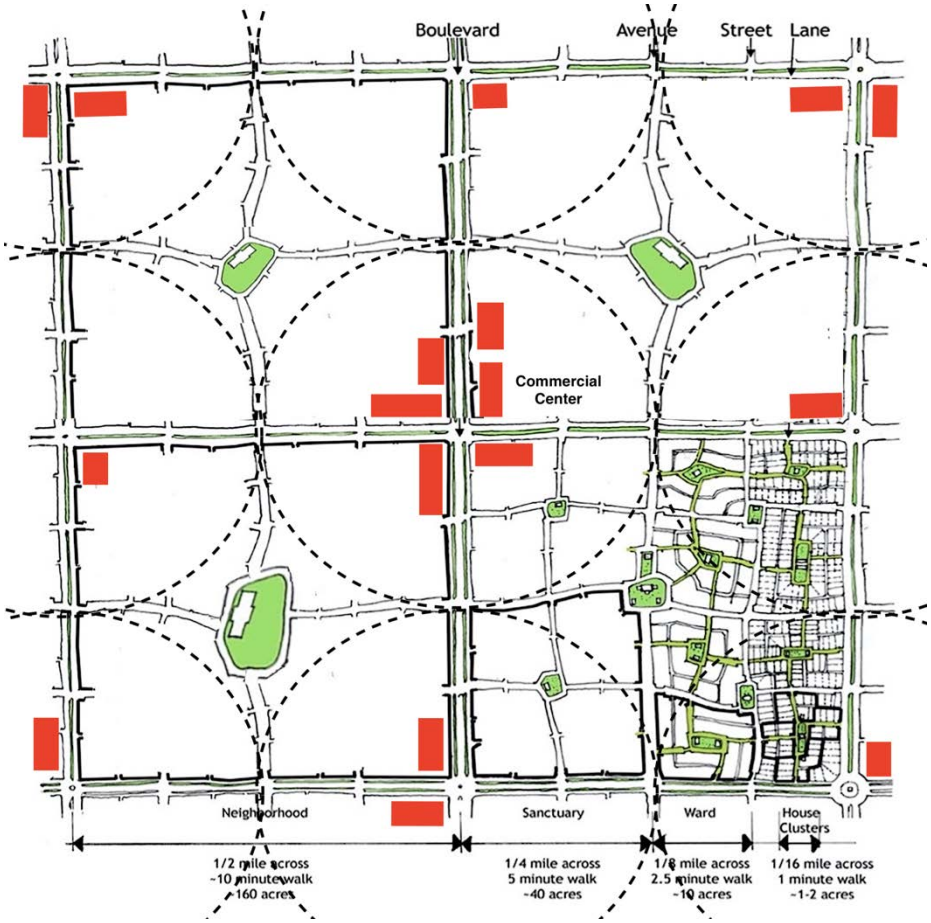
Discussion: Planners believed that we would maximize mobility and freedom by laying out cities as collections of drive-to destinations (like the upper part of the diagram at the top of the page). They didn't anticipate the many problems we have seen – traffic congestion, declining air quality, loss of walkability, impacts on health and well-being, children dependent on parents as "taxi drivers", and problems for seniors, the poor, and others who could not own or operate a car.

The lower part of the diagram shows how the great old cities and towns were laid out, in America and around the world. The uses are the same in the top and bottom of the diagram – homes, schools, shopping, workplaces. But they are far more fragmented in the upper part of the diagram, meaning that it's almost impossible to walk between destinations.

Research has shown that there are important benefits from building walkable communities, including improved health and well-being, more social interaction and sense of community, ecological benefits, and greater economic value over time.[1]

<u>Therefore:</u> Build the Lewis and Clark Ranch as a series of coherent neighborhoods, each with a walkable grid of streets and a mix of uses. As much as possible, include some retail, office, and other walkable destinations within each neighborhood – schools, churches, parks, and other destinations. Make sure that there are walkable streets from all the homes to all the destinations.

Use this rough template as a guide:



Each neighborhood of approximately 160 acres includes some retail within its pedestrian radius (approximately ¼ mile) as well as some parks and other institutional uses. These are not water-tight neighborhood units however, and they are not cut apart by wide arterials. Instead, all streets are walkable and safe for pedestrians. (Drawing credit: Laurence Qamar.)

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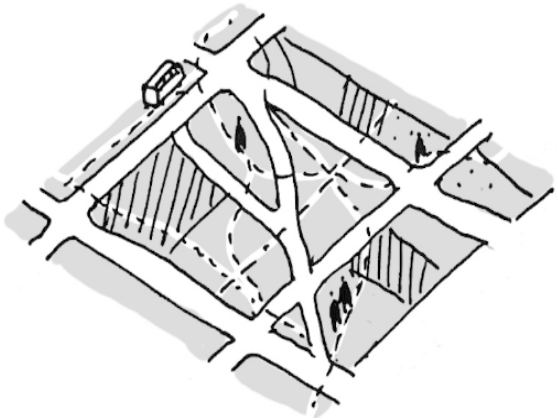
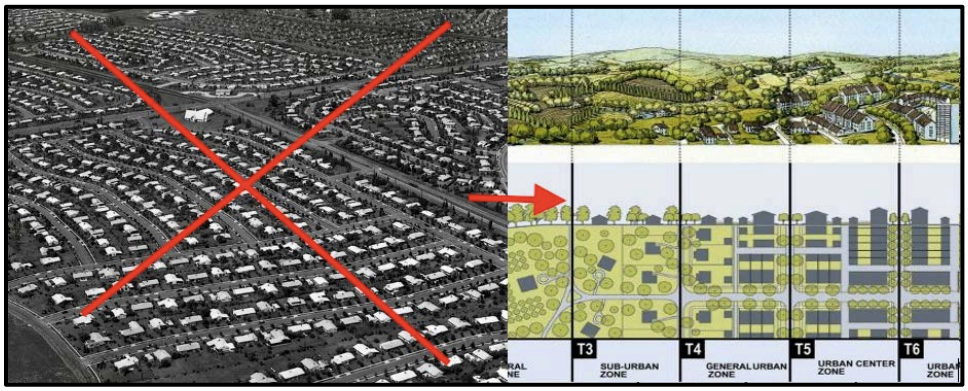
Make a series of nodes following a CLUSTERED SETTLEMENT PATTERN. Do not concentrate traffic on large wide streets, but use a DISPERSED STREET NETWORK. Use a rough STREET GRID to promote connectivity and TRANSPORTATION CHOICE. Incorporate these elements into a FORM-BASED CODE….



Use a rough street grid as the framework for the traditional neighborhood structure

[1] There are many research studies showing the value of walkability. See for example Frank, L. D., Sallis, J. F., Conway, T. L., Chapman, J. E., Saelens, B. E., & Bachman, W. (2006). Many pathways from land use to health: associations between neighborhood walkability and active transportation, body mass index, and air quality. *Journal of the American Planning Association, 72*(1), 75-87. For economic value, see also Litman, T. (2004). Economic value of walkability. *World Transport Policy & Practice, 10*(1), 5-14.

CLUSTERED SETTLEMENT PATTERN***



…Within the TRADITIONAL NEIGHBORHOOD STRUCTURE, Create DENSITY RINGS that cluster the settlements at the cores, and feather out at the edges…

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Problem-statement: When it comes to the places where people want to live, one size does not fit all.

Discussion: Great cities and towns have offered people choice, whether to live on a larger lot farther away from the lively center, or to live close to the thick of things – or somewhere in between. The pattern that offers this choice is a series of clusters, more compact in the center, and less compact at the edges.

People need different degrees of urbanity. This is true not only between different people, but with the same people in different stages of their lives. A young person might want to live close to the thick of things, around their friends and close to activities. They might like an apartment or small house. A family with children might want to live in a larger home a bit farther away. An empty nest couple might want to return to the center, and live in a rowhouse without much maintenance.

The West Richland Comprehensive Plan notes that the city already includes a wide range of densities, and the plan calls for maintaining a range of densities and housing types. There is specific language for clustered densities in the walkable cores of new neighborhoods: "Give preference to locating new high-density development areas where residents will have access to walking and bicycling amenities, and to public transit" (City of West Richland Comprehensive Plan, p. 25).

The best cities and towns offer people these choices, in what is known as a "transect" from the most compact to the least compact (usually at the agrarian edge).[1]

<u>Therefore:</u> Build Lewis and Clark Ranch as a series of clusters of varying compactness. At the centers, the homes and businesses might be very compact and lively. At the edges, they might feather out, and in some cases, the lots might become quite large. But they should average out to a reasonable number, sufficient to provide efficient infrastructure, transportation, and city services.

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Place a COMMERCIAL MAIN STREET at the center of each cluster, with a DISPERSED STREET NETWORK radiating outward and connecting to other clusters…

Clustered settlements are an ancient and time-tested pattern

[1] See e.g. Duany, A., & Talen, E. (2002). Transect planning. *Journal of the American Planning Association, 68*. (3), 245.

TRANSPORTATION CHOICE

… Within the FIVE-MINUTE NEIGHBORHOOD AND FIFTEEN-MINUTE CITY, provide a choice of different ways to get around.

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Problem-statement: People should not be forced to travel everywhere only by car.

Discussion: There are many advantages to walking as well as biking. Both provide exercise, and both are low-cost ways to get around within walkable neighborhoods. Walking in particular makes it easier to interact with neighbors, meet new people, and enjoy the outdoors. Research shows clear benefits for physical as well as mental health.

The disadvantages of over-dependence on the car are well-documented. Aside from the problems for those who cannot drive, or find it a severe hardship – children, the elderly, people with various physical conditions, and people of low income – it is a major burden on families to serve as "taxi drivers" to their children, and other drivers who are increasingly encapsulated in their cars (often caught in traffic congestion) for long periods of the day.

Add to that the decline in air quality, the problem of contaminated water runoff, the limited opportunities for exercise, the high (and increasing) cost of owning and operating a car, and other drawbacks – and it's clear that our utopian schemes for a car-based city have not played out as hoped.

Yet another negative impact, and one of the most serious, is what has happened to the city under this regime. Destinations have spread out ever wider, as we have raced to

accommodate more parking lots and ever wider roads. Instead of beautiful walkable streets, we now have a landscape of strip malls, parking lots and gas stations – a "geography of nowhere" as one author has referred to it.[6]

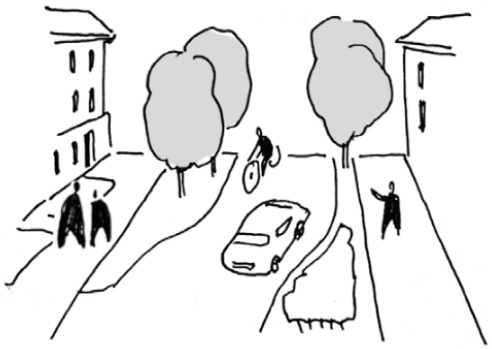
It is also important to provide viable forms of vehicular transportation for those who cannot or wish not to drive, but who still need to reach more distant destinations. These modes of travel can include bus lines, taxis and transportation network companies (like Uber and Lyft), and various forms of ridesharing. The entire transportation system should be seen as an overlapping series of services and modes, providing multiple choices of how to get around for different people at different times.

Best practice for bus service suggests that stops should be no more than ¼ mile apart, and service should be no more than 12 minutes between buses. This is an aggressive standard that may not be easy to meet in the early years, and it will require careful consultation with the local transit agency, Ben Franklin Transit. However, the ability to monitor bus locations and time of next arrival (through bus stop reader-boards, smart phone apps, or a combination) greatly aids in reliability and ridership appeal. Providing comfortable, attractive and dignified bus shelters, ideally adjacent to nearby services, is another way to encourage ridership.

<u>Therefore:</u> Supplement auto-based travel with the easy ability to walk, bike, and take public transportation. Make the transportation convenient and comfortable, providing a BUS STOP with a shelter for each location within the route network.**

❖ ❖ ❖

Plan an integrated, walkable STREET NETWORK as well as a BIKE NETWORK. Include a bus system to provide mobility for those who need vehicular access to more distant destinations. Provide ways to get around, to and through the vehicular network with a smaller network of paths.



Provide many ways to get around for everybody, not just people in cars

[6] Kunstler, J.H. (1994). *Geography of Nowhere: The Rise and Decline of America's Man-Made Landscape*. New York: Simon And Schuster.

II. LANDSCAPE AND ECOLOGY

CONNECTION TO NATURE

… The WELCOMING GATEWAYS can lead to a network of natural areas and features.

❖ ❖ ❖

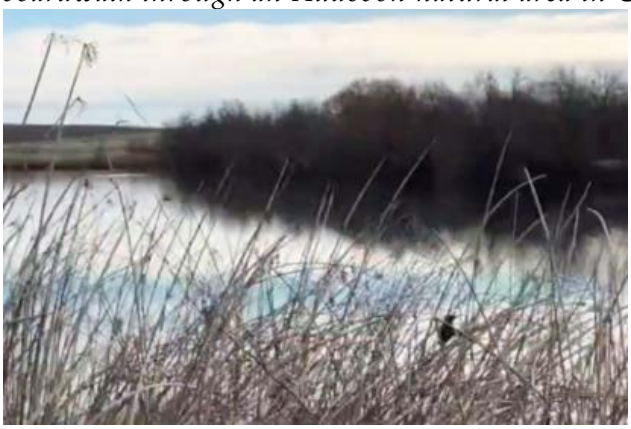
Problem-statement: It is important to have close connections to our natural environment. For children and adults at the Lewis and Clark Ranch, this is a wonderful educational opportunity as well as a lifestyle amenity.

Discussion: The author Richard Louv has described a "nature deficit disorder" in children who do not have access to natural environments[7]. This is a very serious problem for children who live in urban areas without nearby natural areas. The Lewis and Clark Ranch offers an exceptional combination of close-in urban amenities and nearby natural areas, offering educational opportunities for children, as well as amenities for all ages. The greenways also offer an opportunity to create small natural waterways, with frogs and other small animals.

The Lewis and Clark Ranch has several important opportunities to create connections to nature. The Yakima River area (photo below) is very beautiful, with abundant wildlife and habitat. The irrigation canals that run through the site also offer habitat and opportunities for natural open spaces, as well as the beautiful pond at the northwest edge of the site. There is also abundant shrub steppe habitat in these and other locations, which can be preserved for hiking, biking, birdwatching, and other activities. Trails through the community's natural areas should link up, and also connect to regional trail systems as those are developed and extended. Sensitive areas can be protected with boardwalks, and other ways of managing human impacts.

[7] Louv, R. (2008). *Last child in the woods: Saving our children from nature-deficit disorder*. New York: Algonquin books.

Above: The Yakima River at the western edge of the site – a potentially very appealing open space. Below left, the beautiful pond at the northwest edge of the site. Below right, an example of a boardwalk through an Audobon natural area in Connecticut.



<u>Therefore</u>: Provide viewpoints and connections to the surrounding natural areas, including trails. Create opportunities for recreation, education and restoration. Build the greenways to provide natural experiences as well as water-quality treatment.

❖ ❖ ❖

Connect the STREET NETWORK to the CANAL, POND AND HABITAT NETWORK, to allow walking and biking…

NETWORK OF PARKS

…Within the STREET NETWORK, provide a network of parks and natural areas, interconnected with the BIKE NETWORK…

❖ ❖ ❖

Problem-statement: Everyone needs access to a park, even a small "pocket park," within a short distance of their home – at best no more than 750 feet away. At the same time, it isn't practical (or even desirable) to make many large parks.

Discussion: Not every park needs to be large. Sometimes a small "pocket park" (built by the developer and administered by the homeowners' association or other local institution) can work very well as a place for children to play, or adults to sit and visit, or perhaps play simple games. Larger parks with more amenities (typically administered by the municipality) can be a bit farther away, as part of a system of parks at small, medium and large scales. The distribution might be: for every one large recreational park (~2 acres), there are five medium parks (~.5 acres), and twenty "pocket parks" parks (~.1 acre). The largest "park" is the surrounding river, pond, canal and habitat system, offing an outstanding opportunity for connection to nature.

The City of West Richland has the following Parks Level of Service standard:

Park Type / Facility	**Planned Level of Service** (per 1000 residents or 360 homes)
Regional Park	1 acre
Community Park	1.5 acres
Neighborhood Park	.5 acres
Open Space	1 acre
Trails	1 mile

It is also important to provide good pedestrian and bicycle connectivity between parks, and within them too. This should be done with a network of

<u>Therefore</u>: Provide a network of small, medium and large parks, so that every home is within 1,250 feet of a public park. In addition, every home should be no more than 750 feet of a neighborhood usable open space or "pocket park" (typically provided by the developer and maintained by the Homeowners' Association). In accordance with the City of West Richland Parks Level of Service standard, provide at least three acres of park for every 1,000 residents, or 360 homes (using a value of 2.78 residents per home). Strive to connect parks and trails to increase access to parks.

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Connect to the largest park of all, the CANAL, POND AND HABITAT NETWORK. Extend the BIKE NETWORK through the parks. Use the parks to provide TERMINATED VISTAS…

CIVIC EDGE

Civic edge in Seabrook, Washington

…When creating REGIONAL CONNECTIVITY, plan the edges of neighborhoods as places of shared activity…

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Problem-statement: When the edge of a neighborhood lies on a promontory, or along an attractive landscape or body of water, it is common to back up expensive private homes to it, and allow them to "hog" the amenity. This is a mistake.

Discussion: A successful developer we know is fond of saying, "if I am selling privacy, every sale diminishes the value of what I have left. But if I'm selling community, every sale increases the value of what I have left." [1]

This is a shrewd strategy. It suggests that, rather than "privatizing" the edges of a neighborhood where there might be views, it is better to turn those spaces into "civic edges" – shared places that all neighbors can enjoy together, along streets, paths and linear parks.

It is true that this pattern requires some streets to have buildings only on one side – so-called "single-loaded" streets. But they can be narrow streets or even lanes, or in some cases can only be foot paths. They can also include some homes on both sides in some areas, but in the most important viewshed areas, they can open up to be one-sided again.

In some cases, these "civic edges" will occur adjacent to dedicated parks and open space. In those cases, easements and/or dedications may be required for pedestrians to be able to enjoy the adjoining open spaces. In other cases, they may occur adjacent to school facilities, including ballfields and the like. Then a cooperative plan must be developed between the school district, the City, and other private development interests, to assure that good-quality open space is preserved along the civic edge.

Therefore: **At the edges of neighborhoods, where there is a view or attractive place, do not privatize the amenity. Instead, create shared spaces for residents and visitors to gather – civic edges.**

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Make the civic edge part of the NETWORK OF PARKS, and include the CANAL, POND AND HABITAT NETWORK…

[1] Vince Graham, award-winning developer of East Coast communities including Newpoint, Broad Street, and I'On.

WATER IN THE HEART

Image credit: Laurence Qamar

… Make the GREENWAYS beautiful by utilizing utilize water features wherever possible…

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Problem-statement: Few amenities are more attractive than water in the heart of a community.

Discussion: The gathering places of the Lewis and Clark Ranch need to be memorable places, where people want to spend time, and where people who first visit the neighborhood can experience its emotional appeal. It so happens that the stormwater conveyance makes it possible to gather water in seasonal streams and pools within the heart of the community. There is also a canal system that could be used as an amenity, and a beautiful pond just to the southeast of the entry area from Siskiyou Boulevard. With careful design and engineering, these offer important opportunities for water amenities.

Therefore: Direct the water on the site into the greenway channels, forming water quality features. Use them to gather storm water, and direct it to retention facilities as needed. Also, orient to and celebrate the pond, with beautiful open spaces around it and streets aligned to it.

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Tie the waterway network into to the GREENWAYS AND LANES, and collect the water from there for eventual stormwater retention…

CANAL, POND AND HABITAT NETWORK

…From the STREET NETWORK and the GREENWAYS, connect to the pathways that extend along the canals down to the pond, and other habitats…

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Problem-statement: The existing pond and protected habitat areas can be seen as a liability for urban developments like the Lewis and Clark Ranch, since they reduce the developable land, and they constrain the connectivity of streets and paths. But the wildlife that it supports can offer powerful educational experiences, particularly for children.

Discussion: Although the canals and habitat systems constrain the ability to build in Lewis and Clark Ranch, they are also a great environmental amenity and educational resource, helping to inspire future generations. Of course, the habitat system must be protected – but one of the best ways to do that is with compact development, carefully integrated ecologically, and promoting the education and the passion of residents. Where needed, boardwalks and other protective structures can be built.

It is also important that pedestrians and bicyclists can traverse the canals and other habitat areas at a minimum frequency of crossing points, so that these structures do not become barriers to fluid movement, or so-called "border vacuums" (a term coined by the urbanist Jane Jacobs). A minimum crossing spacing of 300 feet is generally required.

<u>Therefore</u>: Turn the liability of the pond and habitat areas into an asset, by connecting trails and viewing areas.

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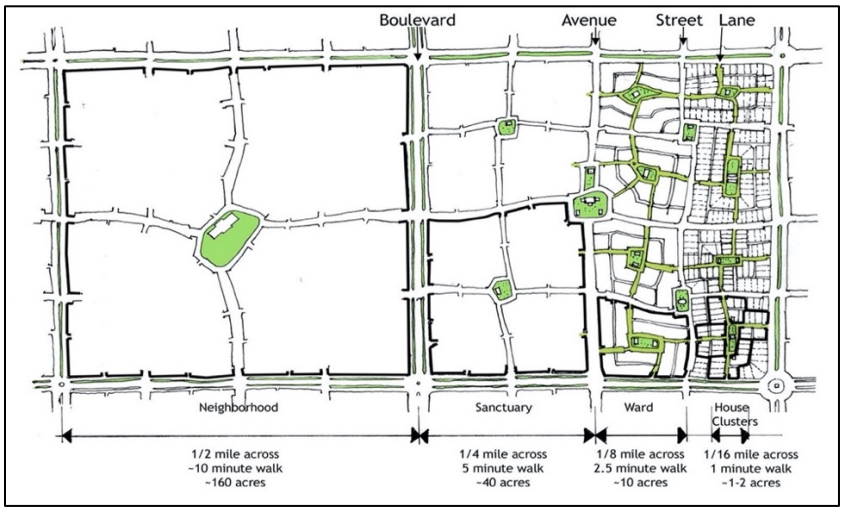
Use the habitat network to improve REGIONAL CONNECTIVITY and to connect to SAFE ROUTES TO SCHOOL….

III. NEIGHBORHOOD AND BLOCK STRUCTURE

SCALES OF COMMUNITY



Drawing credit: Laurence Qamar

…Within the overall REGIONAL CONNECTIVITY, there must be different scales at which people interact and mix with one another.

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Problem-statement: People don't interact at only one place or one scale. We need to be able to interact at many different scales of community, ranging from the city, the district, the neighborhood, down to the block. This means we have to assemble blocks and neighborhoods in particular ways.

Discussion: Too many real estate developments contain only one scale of community, which is often too large to promote community. At the same time, many small communities that are not connected do not work well either. What is needed is a series of interlinked scales of community, employing interlinked blocks, parks, streets and lanes, with connections at many scales. At the fundamental scale of the block, the spacing of pedestrian connections must be frequent – no more than 300 feet on any one side of a bock. This means that either the blocks must be no larger than 300 feet on a side, or streets and public rights of way must penetrate the blocks.

Therefore: Facilitate interaction between neighbors at many different scales, by creating different groupings of homes and public spaces at the block, ward, and neighborhood scales.

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Create PEDESTRIAN SANCTUARIES at the smaller scales of community that give pedestrians priority, but allow vehicles to mix at very slow and safe speeds…

WELCOMING GATEWAYS

…At the entry points of REGIONAL CONNECTIVITY, create monuments that invite and identify.

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Problem-statement: Some new neighborhoods seem to become lost "behind" other existing neighborhoods. Others construct grandiose entry monuments. What is needed is something in between – a welcoming gateway.

Discussion: When entering a neighborhood, it is important to have a sense of arrival into a special place, without the sense that it is isolated behind some other possibly unattractive development. This is important not only for wayfinding but also for the identity of the neighborhood and its place within the larger city.

An ostentatious "entry monument" is not needed, but some kind of gateway is needed that marks the place, and perhaps provides wayfinding information. The structure need not be large – perhaps just columns with signage. There can be pillars at each side of the street, with signage identifying the area. More elaborate designs might include archways over the pedestrian entrances at the sidewalks, or even over the entire street (a common strategy for historic districts and entrances to historic towns).

<u>Therefore:</u> At each of the gateways entering into the community, provide a welcoming gateway, giving a sense of entry and identity for the neighborhood.

The gateway to the historic Laurelhurst neighborhood in Portland, Oregon

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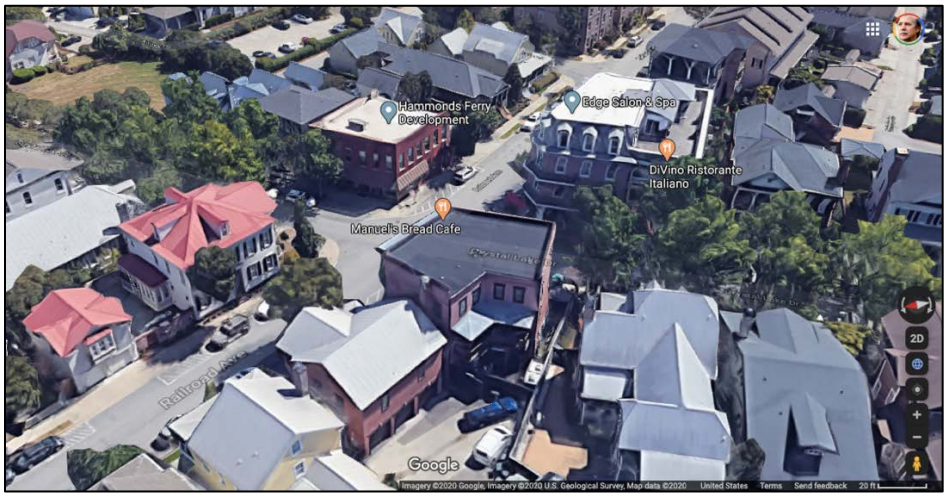
Use the welcoming gateways to provide signage and wayfinding, so that visitors can find the NEIGHBORHOOD CENTER and other parts of the neighborhood…

NEIGHBORHOOD MAIN STREET



…Provide REGIONAL CONNECTIVITY via the main street.

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Problem-statement: A neighborhood needs an identifiable center, offering civic and commercial uses. Throughout history, this has taken the form of a main street.

Discussion: There is an opportunity at the Lewis and Clark Ranch site to run new main streets throughout the new neighborhoods. These main streets can have a higher density of homes (including rowhomes and apartments) along their length, and, at their cores, small retail and commercial centers. At a few cores, there can be larger commercial centers as well as light industrial.

Therefore: Assure that a main street runs through the core of each neighborhood, providing good access to the different parts of the neighborhood. Where possible, locate the core at the crossing of two main streets. Make them pedestrian-friendly, and include on-street parking.

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Provide a NEIGHBORHOOD CENTER as a central gathering plaza along the main street. Connect the main street to the STREET NETWORK….

NEIGHBORHOOD CENTER

…Along the MAIN STREET, provide a neighborhood center.

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Problem-statement: People need a gathering place at the center of their neighborhoods – not just an isolated park, but a place of commerce and interaction.

Discussion: Increasingly, people demand destinations that they can walk to and engage in shopping, dining and commercial life. This function has begun to replace the "recreation centers" of some developments, and it has been cited as one of the most important reasons for buying in some neighborhoods.

To be most successful, neighborhood centers must be nodes where many streets and paths cross – not only streets, but paths and trail systems. They must allow people to walk between the centers and the edges, and the homes and activities in both locations. They must have parks, squares or other open spaces, and activities at their edges.

Therefore: Create a neighborhood commercial center, no matter how small. If needed, combine its functions with sales offices, HOA management and other functions.

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Make the neighborhood center especially compelling and memorable with water features, following the pattern WATER IN THE HEART….

PEDESTRIAN SANCTUARY

 [8]

…Within the SCALES OF COMMUNITY and the NETWORK OF STREETS, provide areas of relative quiet and safety, where children can play safely.

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Problem-statement: How can we balance the needs of neighborhood mobility and thriving commerce with safe areas for pedestrians, especially children?

Discussion: While some areas need to accommodate relatively fast-moving cars, other areas need to accommodate families, children and seniors in a safe and calm environment. This need has resulted in a successful innovations known as a "pedestrian sanctuary." In these areas, typically no more than ¼ mile in diameter, cars are required to move more slowly, and pedestrians have priority. From these "sanctuaries," pedestrians can easily access the nearby principal through streets on foot, along with the mobility and commerce to which they provide access. Streets can be narrow and slow, perhaps only narrow enough for a single car to pass while another pulls to the side (known as a "queueing street"). They may also be irregular, discontinuous and deflected, to discourage cars from cutting through or speeding. In some areas they may not allow cars to pass at all, or they may restrict cars to certain times of day.

These areas can play a key role in transportation choice, by allowing pedestrians and bicycles to traverse the quieter parts of neighborhoods safely. By crossing over the busier streets rather than traveling along them, the pedestrians and bicyclists can traverse large sections of the city safely – including along pathways that offer SAFE ROUTES TO SCHOOL.

[8] Image: Eric Sehr via Flickr

<u>Therefore:</u> Within the network of streets, provide slow, safe areas where families, seniors and children can safely enjoy the public realm. Make these areas no more than ¼ mile across, and connect them to the through streets at their perimeters.

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Allow the BIKE NETWORK to extend through the sanctuary, but at a slower speed, running through GREENWAYS

Cars are welcome – but so are pedestrians

GREENWAYS AND LANES

ABOVE: Seabrook's attractive lane system

…Low-speed mobility is needed at smaller scales within the STREET NETWORK and BIKE NETWORK.

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Problem-statement: How can we allow safe social interaction and recreation between neighbors, at the same time that we provide safe places for cars to park and drive slowly, and for fire trucks and emergency vehicles when needed?

Discussion: A lane (or alley) is a time-honored method to provide vehicular access to homes, as well as utilities, waste pickup and other needs. But if the front sides of these homes are just a repeat of the street type, they may become little used – a waste of space and paving. Instead, if they are green spaces that accommodate socializing, walking and low-speed biking – in effect, "outdoor living rooms" – then the neighbors may come to use them as lively, park-like spaces that combine mobility with interaction.

Greenway with neighborhood gathering places in Seabrook

<u>Therefore:</u> In the portions of the project where this pattern is to be applied, develop the network of lanes and greenways, alternating between them. Provide vehicular access, fire protection, utilities and waste removal on the lanes, and create "neighborhood outdoor rooms" in the greenways, with paths, gathering places, and in some cases, low-speed vehicular access and parking.

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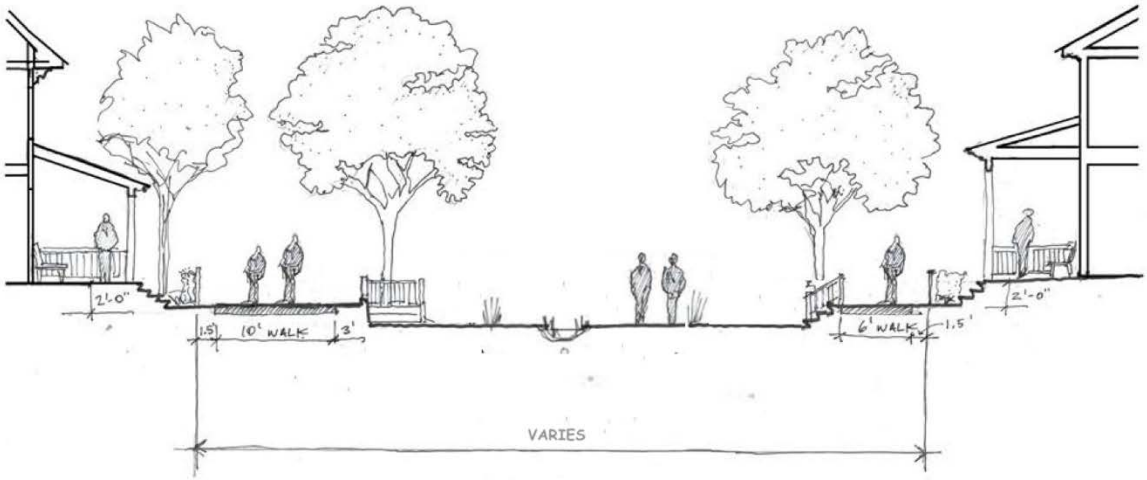
Connect to the public spaces with PEDESTRIAN-FRIENDLY BUILDING FRONTS. Provide GARAGES ON LANES to accommodate parking and storage needs. Supplement the semi-public and semi-private space of front yards and porches with PRIVATE OUTDOOR SPACE for all homes, including side or back yards, or large sheltered balconies…



Above, an example section of a greenway featuring an optional lower swale in the middle.

SAFE ROUTES TO SCHOOL

…Within the STREET NETWORK and the CANAL, POND AND HABITAT NETWORK, make safe, pedestrian-friendly connections, so safe that children can walk or bicycle to school.

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Problem-statement: Why are so few students able to walk or bike to school? Why also is childhood obesity soaring – and is there a link?

Discussion: There has been much research in this area,[9] and the conclusion of many agencies is that cities, towns and neighborhoods must do a better job providing safe routes to schools. The issue is both the safety of children, and their opportunities to walk, bike and exercise. In the case of the Lewis and Clark Ranch, preliminary estimates suggest there will be up to three high schools, and over a dozen elementary and middle schools. Ideally, these should be evenly spaced throughout the neighborhoods, so that they are within walking and biking range for students. Safe routes can be provided in the neighborhoods with slow, pedestrian-friendly streets, well-designed and safe crossings, and pathways that are separated from vehicles while remaining visible and safe for children. The central park feature also offers an excellent opportunity to provide safe hike and bike paths.

[9] See e.g. https://saferoutespartnership.org/resources/academic-research

There are many resources for the design of safe routes, and recommendations for best practice. Many of the patterns in this collection point to key elements, including PEDESTRIAN SANCTUARY, BIKE NETWORK, and GREENWAYS AND LANES.[10]

<u>Therefore:</u> Identify the locations of schools, and map pathways form the schools to all homes in the neighborhood. Identify key crossings and pathways, and do not let dangerous segments interrupt the safe routes.

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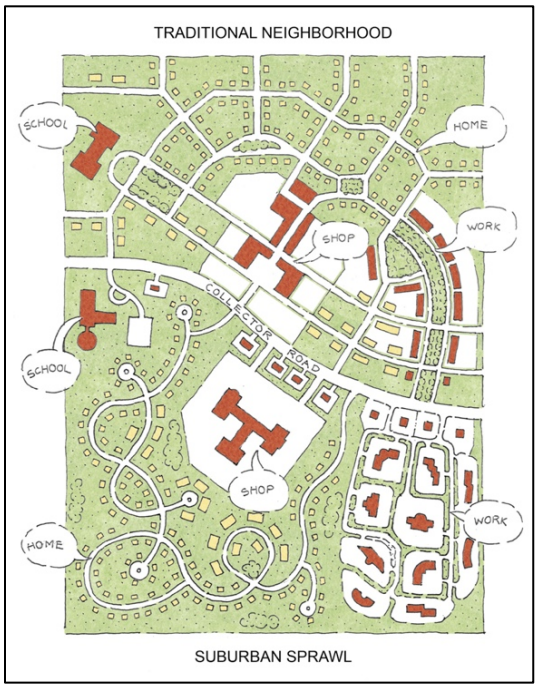
Make sure that the safe routes to school include PEDESTRIAN-FRIENDLY HOME FRONTS…

[10] See e.g. https://www.saferoutespartnership.org, https://www.transportation.gov/mission/health/Safe-Routes-to-School-Programs

IV. STREET AND PATH STRUCTURE

STREET GRID



Drawing credit: Tom Low and DPZ CoDesign

…The COMMERCIAL MAIN STREET should connect to a surrounding street network that is well-connected into a grid-like pattern…

Problem-statement: A sprawling, fragmented street pattern requires more driving over longer distances, and causes "choke points" of congestion. A more interconnected street grid allows many different pathways to get around by car as well as other modes, and allows lower volumes of traffic in any one area.

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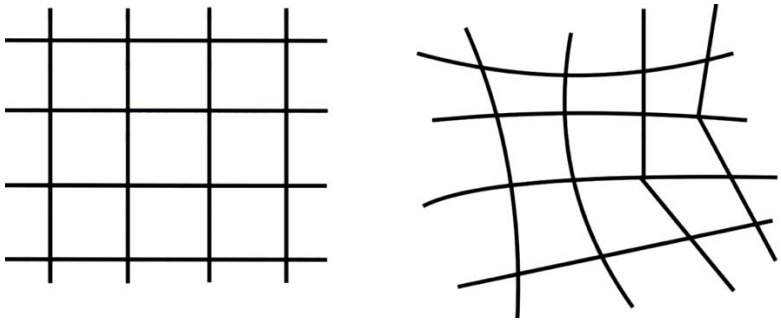
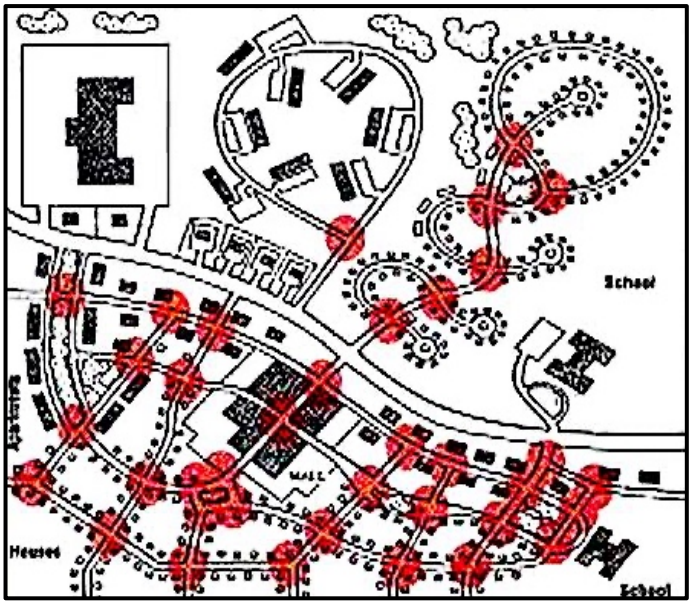
Discussion: The Lewis and Clark Ranch site is challenged by limited connectivity at its edges. Nonetheless, there are opportunities to create a well-connected internal street network to improve walkability and bikability, and to allow vehicular traffic to percolate through the site without causing congestion. This structure can form a rough grid pattern, with alternating streets going roughly east-west and north-south.

It is important to note that street grids need not be uniform. They can take on irregular shapes, and form what have been termed "deformed grids" (diagram on next page). What is important is that they form a pattern of frequent connections, thereby allowing fluid movement in all directions for pedestrians and bicycles as well as cars.



A street grid does not have to be uniform, as on the left.
It can be a "deformed grid" as show on the right.

<u>Therefore:</u> Make sure the community has a well-connected grid of many small, low-speed streets that allow people to get around easily by car, and also by foot and bike. Make sure the density of intersections is high – ideally no farther apart than every 300 feet in all directions.



The rough grid at bottom has a high density of intersections.
The street pattern at top has a very low density – and it
is not walkable or supportive of transit as a result. Drawing credit: DPZ CoDesign

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Within the street network, provide SAFE ROUTES TO SCHOOL and a safe BIKE NETWORK…

SMALL ROUNDABOUTS***

…Keep traffic moving smoothly through the DISPERSED STREET NETWORK.

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Problem-statement: Roundabouts are an excellent way to provide smooth vehicular movement across a street network. But large multi-lane roundabouts can be disruptive to pedestrians and bikes, and confusing to busy drivers.

Discussion: The benefits of roundabouts are well-known. Properly designed, they improve mobility, reduce idling, reduce emissions, and greatly reduce fatalities and injuries from intersection crashes.[1]

A dispersed street network, by design, will reduce traffic on any one street. For a two-lane or three-lane street, a one-lane roundabout (providing two-way movement around its sides) is likely to be more than adequate. Pedestrian crossings can then be made safely at the entrances to the roundabout, which are only one lane wide each.

Roundabouts also offer the opportunity for attractive landscaping and/or public art, including monuments that form TERMINATED VISTAS.

Roundabouts are not always appropriate. For example, when a very low-traffic street intersects a higher-traffic street, it is probably more appropriate to include a stop sign on the lower-traffic street at the entrance to the higher-traffic street, and allow through movement on that street.

Therefore: Use small one-lane roundabouts at intersections where both streets have similar traffic volumes. Make them attractive, with plantings and/or public art in the middle. Provide safe pedestrian and bike crossings at their entrances.

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Incorporate crossings for pedestrians as well as those using the BIKE NETWORK. Where possible, plan the streets leading up to the roundabouts with STREET MEDIANS. Include TERMINATED VISTAS on the roundabouts, in the form of ornamental trees, artwork, fountains, or other beautiful structures...

A mini-roundabout as recommended by the National Association of City Transportation Officials (https://nacto.org/publication/urban-street-design-guide/intersections/mini-roundabout/)

A small roundabout in France with a fountain and whimsical sculpture

[1] See also https://nacto.org/docs/usdg/round-about_traffic_design_landscape_gideon.pdf

STREET MEDIANS***

…In the DISPERSED STREET NETWORK, include medians to improve the pedestrian safety and visual appeal of the streets.

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Problem-statement: Street medians with landscaping are beautiful, discourage speeding, improve pedestrian safety, reduce paved areas, and provide better permeability and water quality. So why don't we have more of them?

Discussion: There are several concerns with street medians. One fear of traffic engineers and public works officials is that medians with trees might pose a collision hazard for vehicles. This is only a significant concern if the design speed of the street is significant enough to cause injury, typically above 25 miles per hour. However, a neighborhood street can be appropriately designed for slower speeds, with strategies to keep traffic moving as smoothly and quickly as in other scenarios.

Another concern is cost. It is true that medians require curbs and landscaping, and these must be maintained. But pavement areas must also be maintained, and they contribute to runoff pollution, urban heating, and other impacts that carry costs. There is also the cost of injuries to pedestrians, which can be reduced with median designs that provide "pedestrian refuges".

Another economic factor is the impact on the surrounding economic attractiveness and real estate value of the neighborhood. There is evidence that more vegetation increases values,[2] and street medians can be a contributor to this benefit. The additional economic value can redound to the benefit of the municipal government.

<u>Therefore:</u> Wherever possible, add medians (or alternatively, periodic islands) to streets. For three-lane street configurations, add medians in place of the middle lane where stacking and turning movements are not required, but provide adequate places for turning from a middle lane.

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Provide beautiful landscaping including native and drought-tolerant species, promoting a CONNECTION TO NATURE. (Examples of suitable tree species are Columnar European Hornbeam, Persian Parrotia, and Ivory Silk Lilac.) In some cases, when carefully designed for safety and mobility, medians can also accommodate paths, seating areas and even ON-STREET PARKING…

[1] See for example https://nacto.org/publication/urban-bikeway-design-guide/intersection-treatments/median-refuge-island/

[2] See Gao, X., & Asami, Y. (2005). Economic value of urban landscapes. Institute of Geographical Sciences and Natural Resources Research, Chinese Center for Spatial Information Science, University of Tokyo, Japan http://www.csis.u-tokyo.ac.jp/dp/67.pdf

COMMERCIAL MAIN STREET***

…The DISPERSED STREET NETWORK will include a number of commercial main streets within each cluster of the CLUSTERED SETTLEMENT PATTERN.

❖ ❖ ❖

Problem-statement: Strip arterials – busy streets lined with parking lots, gas stations and the backs or sides of a few buildings – are not conducive to walking, or to livability.

Discussion: For decades and centuries, buildings lined the fronts of main streets, with some on-street parking in front while more parking was accommodated at the rear. This made for a very walkable, attractive main street district, full of lively commercial uses.

But toward the middle of the 20th century, planners decided that this model was not satisfactory for the new automobile age. They decided that it was necessary to push buildings farther away from the street, and away from each other, in order to accommodate the automobile. The streets would be lined mostly with parking lots, with a few gas stations and smaller buildings up front (often turned away from the street). This meant that pedestrians no longer had safe and attractive street environments in which to walk in these areas.

Yet there are many examples today of successful, popular, attractive main streets, both historic and new – and they deal with the challenges of accommodating the automobile without destroying walkability and human-scale character.[1] These places typically enclose the main street with buildings along the sidewalk edge, with only periodic gaps for drive aisles and perhaps small parking lots on the sides. This requires that the zoning standards be changed to require that buildings and utilities be placed closer to the sidewalk, and closer together. In addition, the form of buildings should be prescribed in broad parameters to ensure that they are lively and active.

In the case of the Lewis and Clark Ranch, the commercial main streets should be at the centers of each neighborhood cluster, spaced about ½ mile apart from each other (see plan map).

<u>Therefore</u>: Designate commercial main streets, encouraging active commercial uses and prescribing the placement of buildings and parking:

1. **Allow a mix of uses, both horizontally and vertically. Let the market decide what can go where.**
2. **Encourage (or require) buildings to be attached to one another, as part of a larger building row, lining the street.**
3. **Provide ON-STREET PARKING as well as parking in the rear.**
4. **Place the commercial main streets at the centers of the settlement clusters, spaced approximately ½ mile apart.**
5. **Reduce MINIMUM setbacks to 0′ from the back of sidewalk, and MAXIMUM setbacks to 12′ from back of sidewalk, with limited exceptions for courtyards, building ells, and secondary outbuilding structures.**

❖ ❖ ❖

Prescribe the forms of buildings (but be liberal on the use) with a FORM-BASED CODE. Require ACTIVE BUILDING FRONTS, BUILDING STEP-BACKS, and DIFFERENT BUILDING GROUPS ON THE BLOCK. Develop and implement design guidelines that will assure TRADITIONAL PEDESTRIAN-FRIENDLY BUILDINGS…

[1] See for example Banai, R. (1998). The new urbanism: an assessment of the core commercial areas, with perspectives from (retail) location and land-use theories, and the conventional wisdom. *Environment and Planning B: Planning and Design, 25*(2), 169-185.

BIKE NETWORK

…Within the REGIONAL CONNECTIVITY and STREET NETWORK, provide safe and appealing paths for bicycles.

❖ ❖ ❖

Problem-statement: Bicycles are important modes of travel that need safe pathways to get around. But they can also introduce problems into the neighborhood due to their speed and potential danger to pedestrians.

Discussion: The "complete streets" movement has argued for placing bicycle lanes on arterials, and this is likely to be required for the Lewis and Clark Ranch. However, bicycles can create problems in neighborhoods when they effectively make streets even wider, which can encourage speeding of vehicles. That in turn makes those streets *less* safe for bicyclists, and for pedestrians too. Many bicyclists prefer instead to ride on slower parallel streets, or where feasible, on separate tracks or pathways. For example, the large rectilinear park can accommodate dedicated bike lanes and/or hike-and-bike trails.

Where bicycles share space with separate hike-and-bike paths, it will be important to restrict their speed, and require them to signal to oncoming pedestrians. An alternative approach is to provide a separate lane, with clear markings to warn pedestrians and guide them to the pedestrian lane.

Therefore: Assure a well-spaced bicycle network running throughout the neighborhood, connecting to its perimeter. Use a regular spacing of parallel slow streets and other pathways that are separated from both pedestrians and vehicles. In limited cases, provide bike lanes on arterials where they are required by state and federal standards. Provide one or more additional bike paths through the central linear park of the Lewis and Clark Ranch. Allow bicycles in lanes (alleys) and greenways, but restrict their speed and require them to signal to pedestrians.

❖ ❖ ❖

Run the Bike Network along the CANAL, POND AND HABITAT NETWORK...

ON-STREET PARKING

…Make sure the MAIN STREET has on-street parking.

❖ ❖ ❖

Problem-statement: How can we slow traffic, protect pedestrians, reduce parking lot areas, and make a safer and more attractive street environment? A remarkably simple and effective solution is to provide on-street parking. [1]

Discussion: Parked vehicles are remarkably effective barriers to protect pedestrians from speeding traffic. Moreover, parked vehicles tend to discourage speeding, by making the street feel narrower, and by posing a continuous potential of a car entering or exiting traffic, forcing other cars to slow.

On-street parking also provides convenient parking spaces for retailers and for homeowners, reducing the need for additional parking lot spaces. Accordingly, the off-street parking requirements should be reduced to reflect the ability to accommodate on-street spaces.

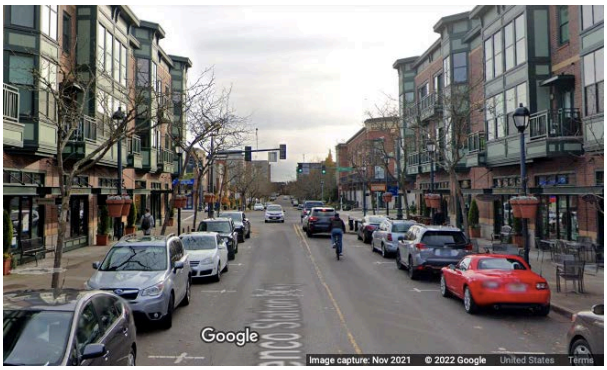
There are some issues to be careful about, however. In neighborhoods where density is very low, or where cars are not used very often, the extra width of unused parking spaces can make a street feel too wide, and too tempting to speeders.

There are also looming challenges from the use of autonomous vehicles, which require less parking – in some cases, no parking at all. But for the immediate future, on-street parking spaces provide important benefits.

<u>Therefore</u>: In all but the lowest-density residential neighborhoods, place on-street parking on all neighborhood-scale streets, including those of the DISPERSED STREET NETWORK. In commercial areas, provide credit for on-street parking toward required parking ratios, generally a one-to-one reduction of requirements.

❖ ❖ ❖

Provide on-street parking in designated locations in the PEDESTRIAN SANCTUARIES, where vehicles can share the street spaces with pedestrians. Maintain PEDESTRIAN-FRIENDLY HOME FRONTS so that those on the sidewalk are protected from traffic on one side, and have attractive building fronts on the other.



On-street parking provides traffic calming and safe environments for pedestrians as well as bicycles, in (L) Orenco Station, Hillsboro, Oregon, and (R) Seabrook, Grays County, Washingon.

[1] A very instructive paper about on-street parking is here: Marshall, Wesley E., Norman W. Garrick, and Gilbert Hansen. "Reassessing on-street parking." *Transportation Research Record 2046, no. 1* (2008): 45-52.

TERMINATED AND DEFLECTED VISTAS

The distant views of the hills and mountains could be a powerful terminating vista for streets in the Lewis and Clark neighborhoods.

…Use the STREET NETWORK and GREENWAYS to provide views of especially attractive buildings and other monuments.

❖ ❖ ❖

Problem-statement: Walkable neighborhoods require interesting views and a sense of enclosure – not rigidly straight streets the stretch into infinity.

Discussion: There are a number of potential offsite vistas, including the distant hills and mountains. Buildings within the neighborhood can also provide attractive facades viewed straight on at street endpoints, or as deflected vistas in the winding segments of streets.

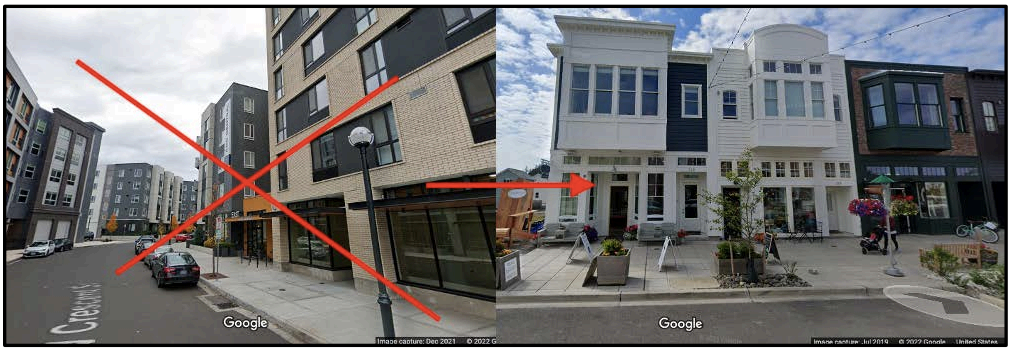
Therefore: Maximize the views of offsite monuments (like the nearby mountains) from as many streets and paths as possible, and use buildings to create attractive end or side "deflected" views. Make sure that the quality of these buildings is worthy of their important positions.

❖ ❖ ❖

Maintain the PEDESTRIAN-FRIENDLY HOME FRONTS without blocking views from adjoining home frontages…

V. BUILDING TYPES AND PLACEMENT: COMMERCIAL AND CIVIC

TRADITIONAL PEDESTRIAN-FRIENDLY BUILDINGS***



…Along the COMMERCIAL MAIN STREET, assure that buildings are pedestrian-friendly, and compatible with the preferences of those who will actually live there.

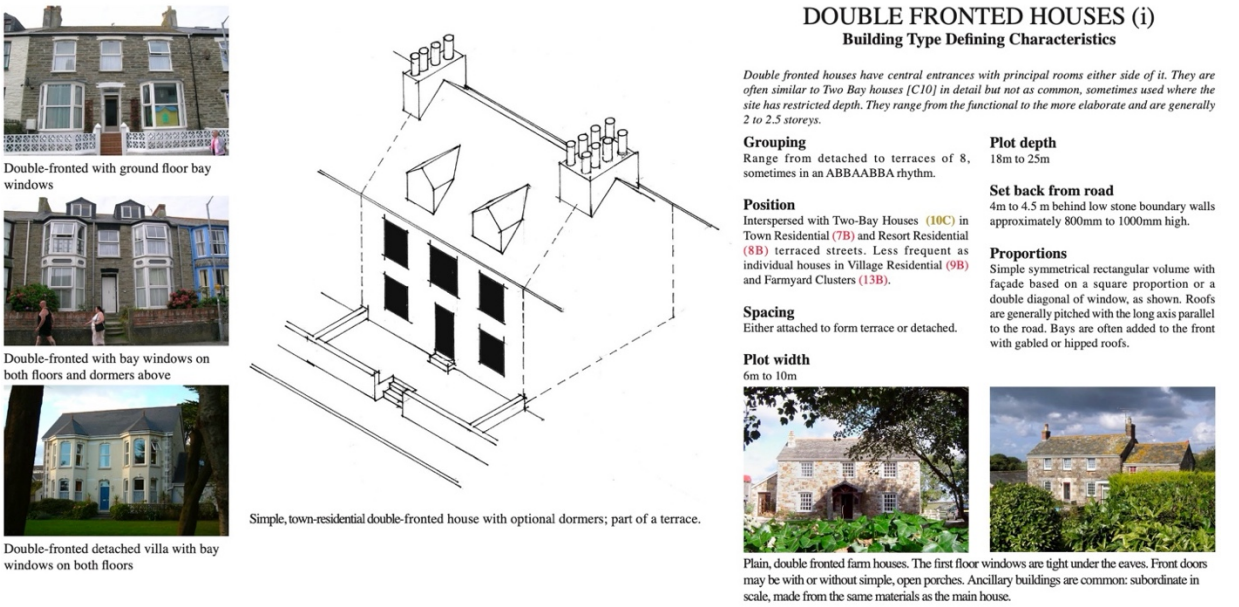
❖ ❖ ❖

Problem-statement: The use of traditional characteristics in buildings facing streets and other public spaces – traditional patterns, window types, ornament, detailing – is clearly preferred by stakeholders in the Lewis and Clark Ranch planning process. Evidence suggests it is also most likely to produce popular and successful neighborhoods.

Discussion: If we are creating buildings for the users and the citizens, and not merely for other architects, then we must recognize what most people actually prefer [1]

In the project visual preference study where respondents were asked to rank the two images at the top of this page, 62.1% favored the image on the right (labeled "new traditional"), while just 32.9% favored the one on the left (labeled "new modern"). These results are consistent with many other surveys in a number of countries.

How would such design characteristics be achieved in practice? There are a number of resources that the City and its stakeholders could implement. One is the so-called "pattern book" (not to be confused with a pattern language, like this document). A pattern book is a traditional compendium of design elements that are described in detail, together with the ways in which they can be assembled. The example below is from a new development in Newquay, UK, developed by The Prince's Foundation for the Built Environment. The document describes the typical components of traditional buildings in that region, and how they can be designed and detailed to form a compatible, harmonious result.



Excerpt from a pattern book developed for Newquay (UK) showing the massing and assembly of building elements in a regionally compatible form.

Pattern books have been used successfully in many projects across the US, including the Walt Disney Company's Florida city known as Celebration, and the popular Oregon development known as Villebois.

There are other mechanisms available to specify architectural character as well. One of the most common is the design guidelines or design standards document, which typically specifies massing, materials, colors, detailing, and other elements. These documents can be quite prescriptive – which can result in added expense and also undesirable uniformity – but they also typically allow for proposers to advance alternate designs that still satisfy the intent of the documents. Another approach is a "form-based code" that specifies the geometric characteristics of a building, often allowing more freedom in specific design details. The City and its stakeholders can consider developing and adopting one of these documents as a mechanism of implementation of this pattern.

<u>Therefore:</u> Allow the users to have input in shaping the character of buildings according to their preferences and needs. Do not allow designers to impose their own contrary visions without input from the public. Instead, challenge architects to meet the preferences of users with skillful artistic solutions. In particular, require architects to consider good traditional design solutions that create varied, interesting, attractive streetscapes. Restrict or forbid large blank panels, windows that are placed randomly across the facades, and crude boxy forms.

❖ ❖ ❖

Use ORNAMENT**, SMALL GROUPS OF ELEMENTS* and HUMAN-SCALE DETAIL* to humanize the design, especially at the sidewalk level…

[1] See Gifford, R., Hine, D. W., Muller-Clemm, W., & Shaw, K. T. (2002). Why architects and laypersons judge buildings differently: Cognitive properties and physical bases. *Journal of Architectural and Planning Research*, 131-148.

BUILDINGS IN FRONT, PARKING IN REAR

…Within each COMMERCIAL MAIN STREET, assure that every building is contributing to the active, walkable, attractive streetscape.

❖ ❖ ❖

Problem-statement: Parking lots on the front sides of buildings create unappealing, dangerous walking paths, discourage walking, and encourage everyone to drive everywhere. This is hardest on children, seniors, and others who cannot or do not want to drive, for health, economic, or other reasons.

Discussion: When buildings are brought to the fronts of the property, lining the streets, they create a more coherent, more attractive, safer walking environment.

Therefore: Require buildings to be sited at the street fronts, not at the backs of the lots (unless they are secondary buildings behind others). Restrict setbacks from the backs of sidewalks to 0′ MINIMUM and 12′ MAXIMUM, with exceptions for courtyards, ells, and secondary outbuildings. Place the majority of the parking at the rear, but include some on-street parking – including some spaces restricted to short-term pickups and drop-offs.

❖ ❖ ❖

Promote ACTIVE BUILDING FRONTS with minimum areas of glazing and spacing of entry doors. Where larger buildings might create too much uniformity, instead create variety with DIFFERENT BUILDING GROUPS ON THE BLOCK…

ACTIVE BUILDING FRONTS***

…On the COMMERCIAL MAIN STREETS, it is very important to avoid blank walls and other dead structures.

❖ ❖ ❖

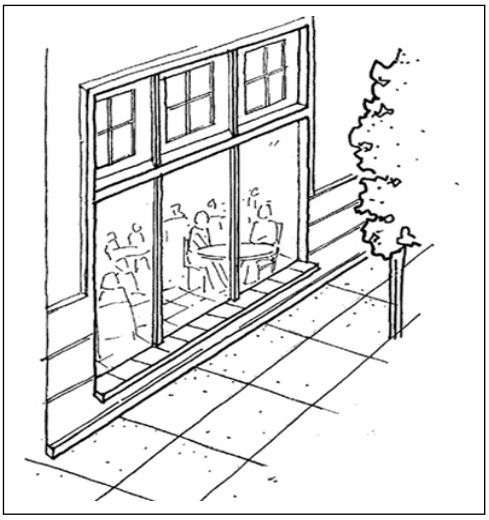
Problem Statement: Commercial frontages without enough openings or opportunities to spill out onto the sidewalk are too often dead and unattractive to pedestrians.[1]

Discussion: In order to create successful frontages in support of a walkable neighborhood, buildings must have a minimum percentage of window area on their fronts (at least 40%). The fronts must also include entry doors from the sidewalks to all businesses.

Commercial buildings especially (retail spaces and offices) need to have a minimum percentage of window area, as well as visible entry doors to the street or public space for each business. The following standards are typical:

- Façades facing public streets or public open spaces must be treated with a combination of prominent primary or secondary entrance, display windows, transparent façades, façade modulation, canopies, and/or awnings.
- Façade of retail spaces facing public streets, public open spaces or plazas will require at least 40% of the façade area comprised of clear vision glass at the ground level, unless a specific alternative design is approved by the Community Development Director.

- Façades of office spaces facing public streets, public open spaces or plazas shall have at least 25% of the façade area comprised of clear vision glass unless a specific alternative design is approved by the Community Development Director.
- Solid blank walls must be avoided except for service areas where they must be screened from public view.
- Glass area should range between 2 ft and 12 ft from the ground level.



Indoor-outdoor relationship.

50% transparent façade area (between 2 ft to 12 ft from the ground level)

Display windows along public streets should express the type of business by displaying its products. Signage on windows does not satisfy this requirement.

Tinted or reflecting glass is discouraged at the ground level when it prohibits visual connection between indoor and outdoor environments.

<u>Therefore</u>: Create a requirement for glazing (windows, glass doors) of between 2 and 12 feet of height, for at least 40% of the wall length on all retail frontages, and at least 25% of the length of the wall for all office frontages, for all but service sides of buildings. On the service sides, require screening of blank walls, waste receptacles, and other service elements.

DO:

Display window instead of solid blank wall.

DO NOT:

Lack of adequate façade transparency fails to create an indoor-outdoor relationship.

❖ ❖ ❖

Use a FORM-BASED CODE to specify the amount of glazing, number of entries, and other features of the active building fronts. Make sure also that the frontage includes STREET TREES* and STREET FURNISHINGS*…]

[1] The MIT professor Kevin Lynch wrote perceptively about the reason that we need active building frontages. "An edge may be more than simply a dominant barrier, some visual or motion penetration is allowed through it—if it is, as it were, structured to some depth with the regions on either side. It then becomes a seam rather than a barrier, a line of exchange along which two areas are sewn together." This is how a building along a city street can not only not pose a barrier, but actually connect the building's activities more directly to the street and the people on it. See also Heffernan, E., Heffernan, T., & Pan, W. (2014). The relationship between the quality of active frontages and public perceptions of public spaces. *Urban Design International, 19*(1), 92-102. See also the very perceptive comments of Kevin Kynch in his highly influential book *Image of the City* (1960, Cambridge: MIT Press).

BUILDING STEP-BACKS***

…Support ACTIVE BUILDING FRONTS by avoiding buildings that disrupt the pedestrian scale of the street.

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Problem-statement: Buildings that are taller than two stories can tend to loom over the sidewalk below, creating excessive shadows, wind and other problems. Wind is a particular issue in the Tri-Cities region.

Discussion: Too many buildings are aggressively boxy, and unresponsive to the pedestrian scale at the street. This is especially a problem for buildings that are taller than two or three stories. For that reason, many urban codes require a step-back – a point, usually above the second or third floor, where the building steps back at least eight feet.[1] The intervening space can be left as unused roof area, or used for a nice rooftop terrace overlooking the street.

The entire building does not need to step back. Corner elements can remain as tower forms, as long as they are not too wide (more than about 40 feet). The building below steps back in the middle section of the second floor (roughly equivalent to the third floor of a residential building) while leaving tower elements at the corners. These provide access to the terrace, with interior spaces looking out onto it.

A grocery store with a terrace step-back in the middle.

<u>Therefore:</u> Create a form-based code – a regulatory document that translates the goals of this document into detailed technical specifications – that includes a requirement for step-backs for floors greater than 20 feet above the sidewalks grade (measured as an average). Require step-backs of at least eight feet. Allow exceptions for up to 50% of the façade length, if occurring at the corners, and if not wider than 40 feet.

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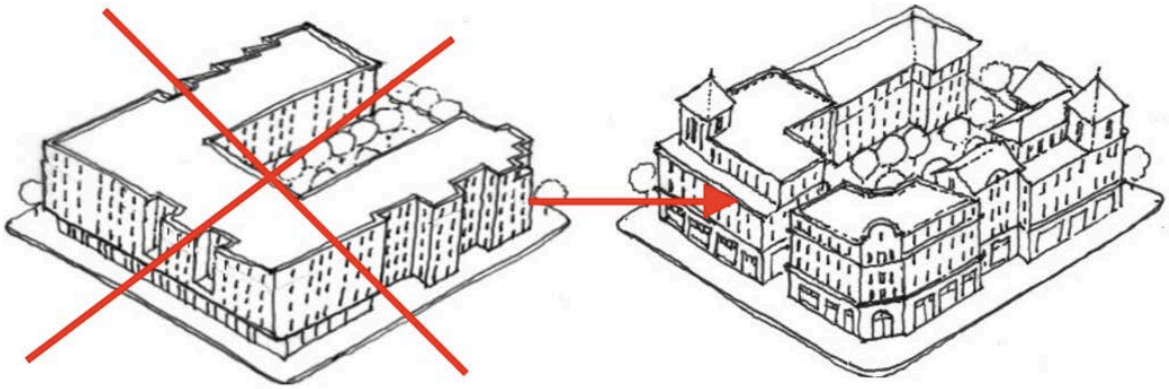
Add a terrace as an OPENING TO THE STREET** above the ground floor. Employ design principles of TRADITIONAL PEDESTRIAN-FRIENDLY BUILDINGS…

[1] It is a remarkable consequence of an early form-based code, the 1916 New York City Zoning Resolution, that its step-back requirements produced many of the iconic shapes of skyscrapers that are still beloved today. See for example https://en.wikipedia.org/wiki/1916_Zoning_Resolution

DIFFERENT BUILDING GROUPS ON THE BLOCK***



Drawing credit: Laurence Qamar

… On the COMMERCIAL MAIN STREET, do not let buildings grow too far beyond human scale.

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Problem-statement: When a building occupies an entire block, it can become oppressive and damaging to the human scale. But sometimes, economics requires a larger building. There are ways to solve this problem.

Discussion: One way to deal with this problem is to compose the building as a series of smaller buildings, each with distinctive massing, window patterns, and even materials and colors. The interior areas can still be connected in order to economize (e.g. elevator cores and lobbies). In fact, this pattern recapitulates what has happened to many buildings over time – smaller buildings have been joined via their interiors in order to achieve larger spaces (e.g. larger hotels, offices, etc.)

There are some exceptions to this pattern. For example, a large civic building (like a courthouse, state capitol building, etc.) is likely to be appropriate as one large building. T the same time, it is important to keep the exterior human scale, by placing many entrances and smaller, human-proportioned windows (roughly 3′ x 6′). This helps to maintain a visual connection to a form that is literally a human scale (about 3 feet wide by 6 feet tall).

Therefore: **When a single building occupies a small block, if it will otherwise be too monolithic, compose it (or remodel it) as a series of distinct buildings, each with distinct massing, window groups, detailing, and (in some but not all cases) materials and colors.**

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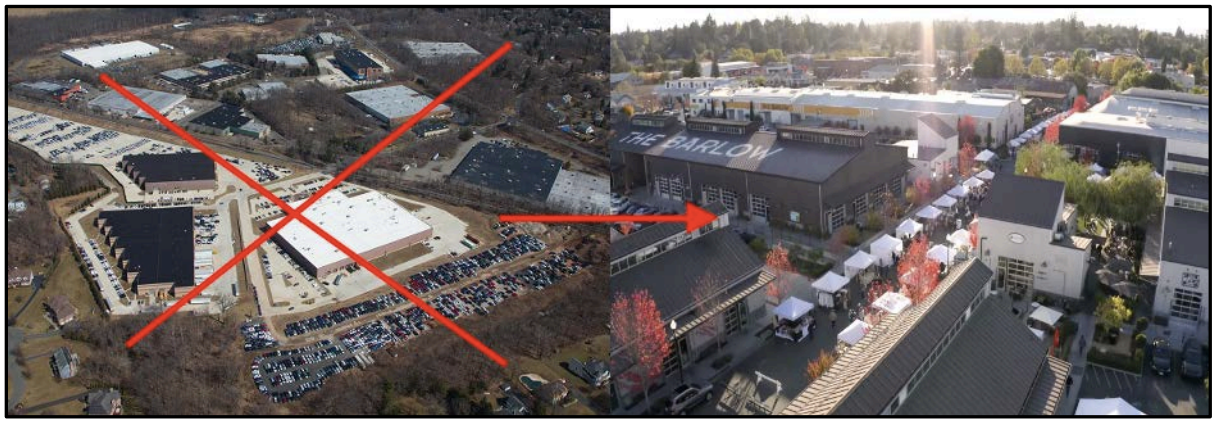
Use FRAMING* to create strong borders around the windows (or recesses). Use LOCAL SYMMETRY* to create distinct groupings that appear as separate buildings…

MIX OF SMALLER INDUSTRIAL "MAKERSPACES"***



…Within the CLUSTERED SETTLEMENT PATTERN, include workplaces that are easy to get to from homes – ideally, with just a walk or short bike ride. Some of these can be industrial spaces – but they need not be large warehouse style facilities.

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Problem-statement: There is a significant and growing market for smaller industrial spaces, some of which combine retail and commercial sales. These spaces are more compatible with a mixed urban fabric that includes residential.

Discussion: So-called "makerspaces" have been the subject of a great deal of attention in recent years.[1] In a sense, however, this is just a newer way of describing a much older pattern: the sol-called "flex industrial," which generally does not require deep-plan buildings or major trucking or rail access. As this market has developed, many of the businesses have differentiated into agricultural products, wines and beers, exportable crafts items, and even small-scale high-tech manufacturing.

One benefit of these spaces is that they can also include retail or commercial outlets – for example, wine tasting rooms, agricultural product vending and the like.

Granville Island, a former heavy industrial area in Vancouver, B.C. that has been regenerated as a light industrial district with foundries, galleries, and other "makerspaces" as well as a major market serving the city.

<u>Therefore</u>: Within the Lewis and Clark Ranch, at several appropriate locations, designate smaller industrial "makerspace" districts. Locate them at the edge of a CLUSTERED SETTLEMENT PATTERN, but still well connected to the walkable and bikeable street system.

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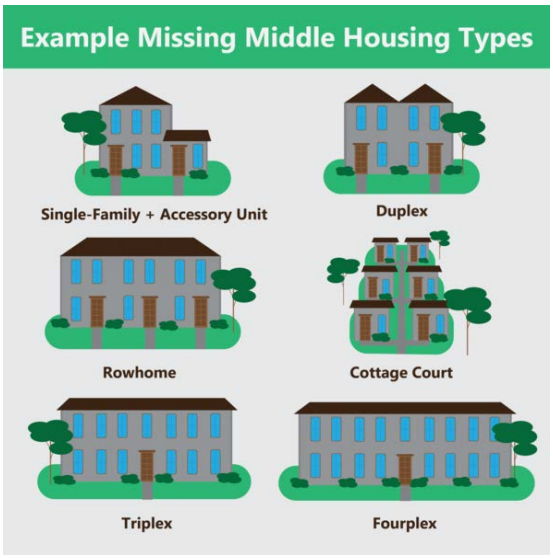
Connect the smaller industrial spaces with the surrounding DISPERSED STREET NETWORK. Place each BUILDING IN FRONT, PARKING IN REAR. To the extent possible, make the street-side edges of the buildings as ACTIVE BUILDING FRONTS…

[1] See Hennelly, P. A., Srai, J. S., Graham, G., Meriton, R., & Kumar, M. (2019). Do makerspaces represent scalable production models of community-based redistributed manufacturing?. *Production Planning & Control, 30*(7), 540-554.

VI. BUILDING TYPES AND PLACEMENT: RESIDENTIAL

HOUSING CHOICE



…Just as within the TRADITIONAL NEIGHBORHOOD STRUCTURE there are SCALES OF COMMUNITY, there must be scales of housing – different sizes, types, and formats, for different needs.

❖ ❖ ❖

Problem-statement: When it comes to housing, people have greatly varying needs, not only between individuals, but at different stages of life. Yet we have built too many places with only low-density single-family homes on the one hand, and high-density apartments on the other.

Discussion: Many places today are experiencing a "missing middle" – a shortage of home types across the spectrum, from single-family detached, to smaller cottages, to attached rowhomes, to duplexes and multiplexes, to small apartment buildings. This limits the choices people have to "dial in" the right kind of home for them. Young people might want smaller apartments close to the active centers, while families with kids might need larger single-family homes. Older "empty nest" couples might want to go back to a rowhome or apartment with lower maintenance, allowing them to travel, or limit the requirements for routine yardwork.

Missing middle housing, illustrated by Dan Parolek and Opticos Design.[1]

For the Lewis and Clark Plan, and for the City of West Richland's Comprehensive Plan in general, a range of densities is contemplated – from the lowest density of larger homes in residential settings (lots at ½ acre max, or 7 units per acre net density) to the highest-density apartments and condominiums, and all ranges in between.

Examples of housing choice in the range of the "missing middle:" Above left, duplex; above right, fourplex; below left, small "courtyard-style" apartment; below right, a "pocket neighborhood" or cottage cluster. These and other kinds of homes – large and small, rural and urban, rental and purchase – should be available for residents to choose based upon their particular needs.

<u>Therefore</u>: Discourage large monocultures of only one kind of housing – single-family detached on the one hand, and multi-family apartments on the other. Instead, work to achieve a mix of housing types, distributed throughout the neighborhoods.

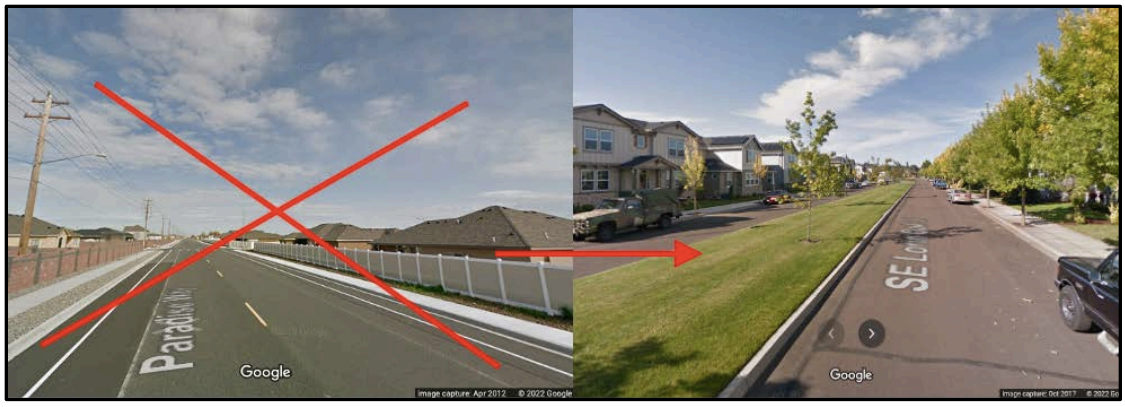
❖ ❖ ❖

Provide LANE GARAGES AND CARRIAGE HOUSES as well as other varieties of home types, distributed throughout the neighborhood…

———

[1] See e.g. Parolek, D. Parolek, D. G. (2020). *Missing Middle Housing: Thinking Big and Building Small to Respond to Today's Housing Crisis.* Washington, D.C.: Island Press.

FRONTS OF HOUSES FACE ALL STREETS***



…Within the DISPERSED STREET NETWORK, assure that all streets are attractive and suitable for fluid but pedestrian-safe movement.

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Problem-statement: When houses are turned away from streets, leaving only the back yard fences lining the streets, the streets become uninteresting, unpleasant, and even dangerous.

Discussion: Drivers naturally slow down when they have something interesting to look at, like the fronts of houses. When all they see is a wall, they tend to speed up.

In fact, there is even research evidence that the sight of vegetation and interesting architecture lowers the measurable stress levels of drivers, while the sight of bare walls increases it. This has implications not only for the well-being of drivers, but their productivity when arriving at work.[1]

Of course, another major factor affecting health and well-being is a relatively slow and pedestrian-friendly street – but at the same time, a street that allows traffic to move without major congestion, which is also stressful. This is feasible as a result of the dispersed street network, where cars can take many less-crowded paths to their destinations.

Therefore: Do not back up rear yard fences to fast arterials. Instead, keep all streets pedestrian-friendly, with house fronts required to face the streets. To promote a walkable, sociable streetscape, require a MINIMUM setback of 12 feet from the right-of-way line, and a MAXIMUM setback of 16 feet. (Garage faces must be an additional 10 feet behind the most forward element of the house.) Encourage porches and other pedestrian-friendly street-front architecture.

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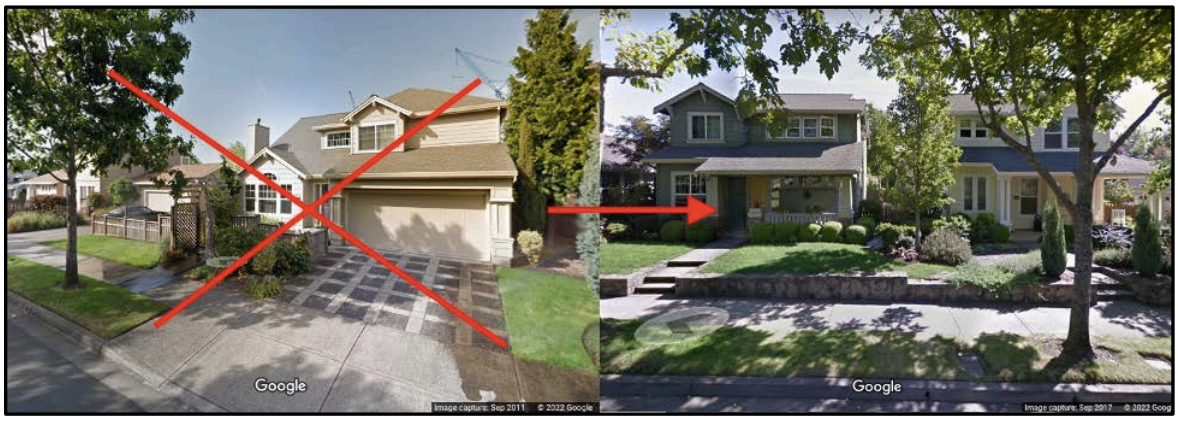
Provide ON-STREET PARKING on the streets, in order to protect pedestrians and slow traffic.


Examples of pedestrian-friendly homes facing streets in popular and successful new projects in (left) Mueller Austin, Texas, and (right) Stapleton, Colorado.

[1] Parsons, R., Tassinary, L. G., Ulrich, R. S., Hebl, M. R., & Grossman-Alexander, M. (1998). The view from the road: Implications for stress recovery and immunization. *Journal of Environmental Psychology, 18*(2), 113-140.

GARAGES IN REAR***
(OR IN FRONT IF SET BACK 10′ FROM FAÇADE)



…For the DISPERSED STREET NETWORK, include a mix of areas with alleys, and GREENWAYS AND LANES; or assure that garages facing the fronts are not too disruptive of the pedestrian character.

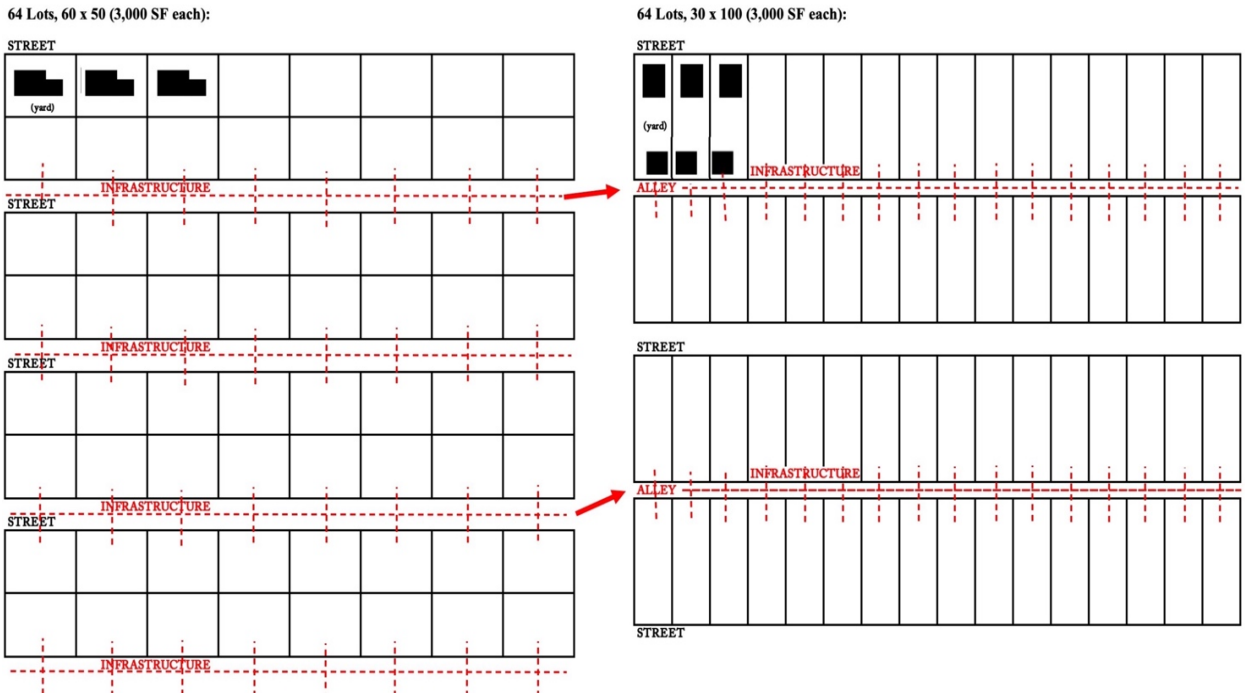
Problem-statement: Too many homes have large, visually dominant, front-facing garages that destroy the walkable streetscape character of the neighborhood.

❖ ❖ ❖

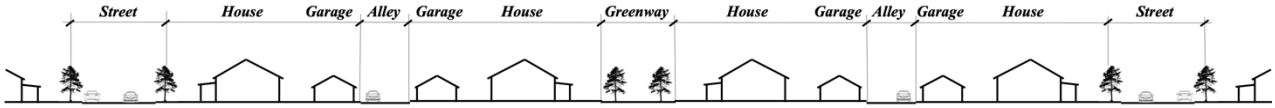
Discussion: An obvious solution is to place the garages on alleys. However, some builders object to this approach, believing that it adds to cost, and buyers may not accept this configuration. First, there are many highly successful developments where garages are located on alleys, and the demand for these homes is high. (See for example Daybreak, Utah, one of the top-selling master-planned communities in the nation.) Second, the economics is more favorable than one might assume.

On the following page is a hypothetical comparison of front-loaded homes on 60′ x 50′ lots, to alley-loaded homes on 30′ x 100′ lots – exactly the same lot size of 3,000 SF. The yield is virtually identical, namely, 64 lots in each case. Note that the street spacing is also roughly the same in both cases. However, half of the "streets" in the alley-loaded scheme are not streets but alleys, meaning that they are much narrower, do not have curbs or sidewalks, and are far cheaper to build.

Furthermore, the front-loaded schemes still need to have full driveways, whereas the garages on alleys only need small drive aprons. The utilities can also go into the alleys only, or the streets only, in a joint-trench configuration – doubling the number of lots per lineal foot of infrastructure, and saving even more money.

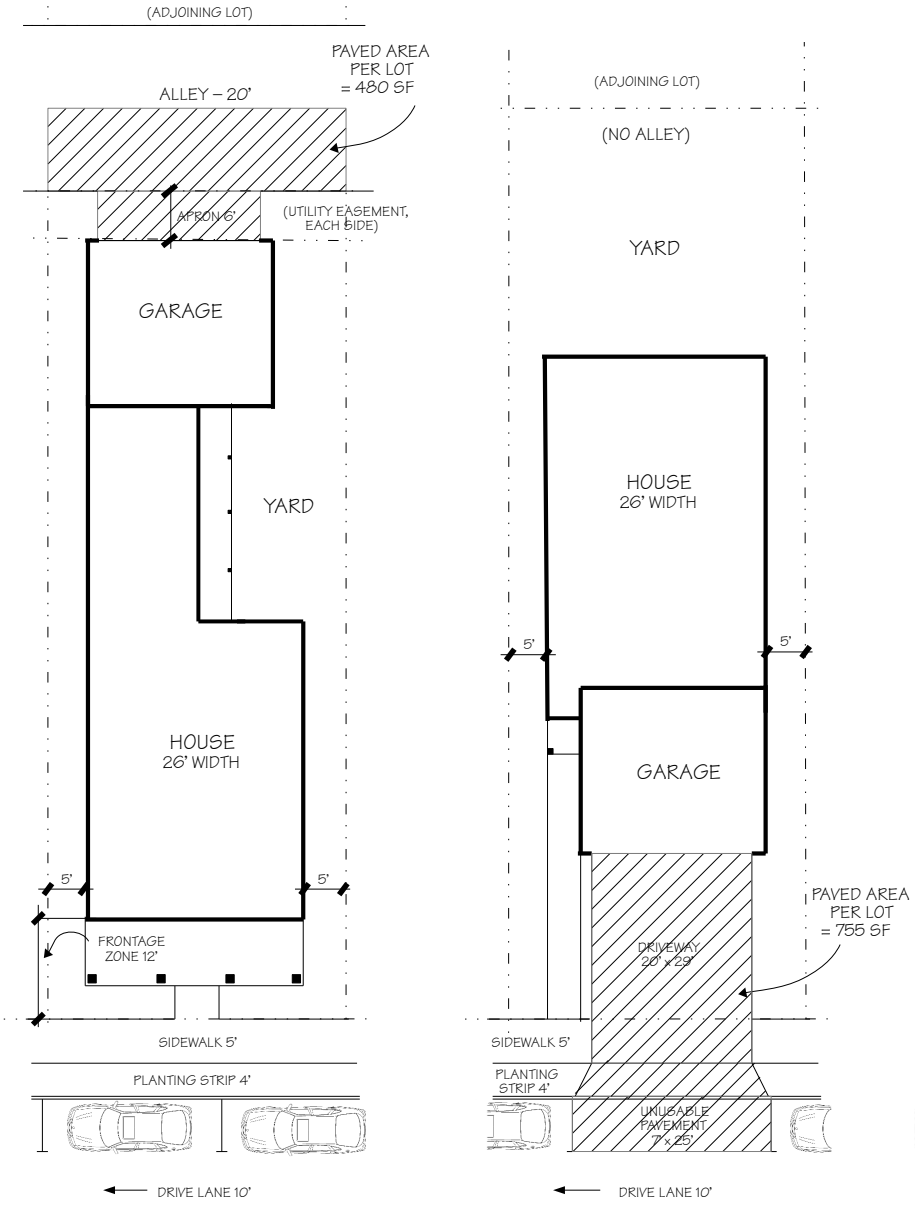


Above, two scenarios: 64 lots at 60′ x 50′ and 64 lots at 30′ x 100′. Note that only half as many full streets are required for the same number and area of lots; the remainder can be narrower and cheaper alleys. Half as much infrastructure is also required, since each lineal foot of infrastructure serves twice as many houses.



Above, a section of a neighborhood showing an alternating pattern of streets, alleys, greenways, alleys, and streets. Below, an example from Daybreak, Utah, a popular and successful master-planned community, and one of many new developments utilizing this pattern.

A common objection is that the cost of pavement in the alleys is prohibitive. However, a front-loaded house typically includes a similar amount of pavement for the driveway apron, as the figure below shows. Furthermore, the section of street in front of the driveway can no longer accommodate on-street parking, which means that this area of street pavement is essentially wasted.



Above, a comparison of the area of pavement in an alley-loaded home versus a typical front-loaded home. There is actually more pavement in the front-loaded home, owing to the driveway apron and unusable street pavement area. Note that the front-loaded example is shown at the same lot width for comparison, although it would not comply with the 10 foot garage setback that is recommended in this pattern.

At the same time, front-loaded garages may still be appropriate in some cases. (For the Visual Preference Survey done as part of the Lewis and Clark subarea plan, respondents were exactly split 50%-50% in their preferences.) To ensure that the garages are not too disruptive of the streetscape, they should be pushed back a minimum of 10 feet behind the front façade of the house, and limited to no more than two garages. (More than two would require a side garage configuration.)

Therefore: **Make it possible to build homes with garages on alleys, which will promote more attractive and pedestrian-friendly streets. Where homes have garages facing the fronts, require them to push back at least 10' behind the front façades of the homes, and limit them to two garage doors (or else they must be rotated and accessed from the side or rear).**

❖ ❖ ❖

Consider changing the streets and alleys to GREENWAYS AND LANES. In any case, always maintain PEDESTRIAN-FRIENDLY HOME FRONTS.

LANE GARAGES AND CARRIAGE HOUSES

Garages and carriage houses in Seabrook, Washington

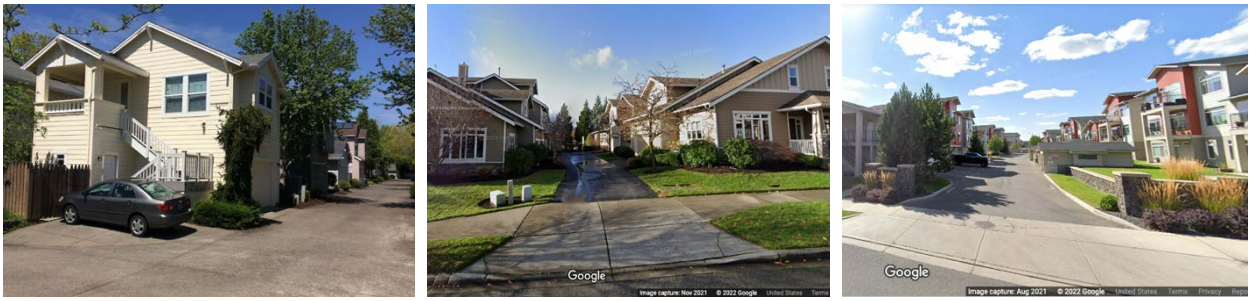
… Arrange the GREENWAYS AND LANES to accommodate garages and "carriage houses" or accessory dwellings, as well as other functions in the neighborhood.

Problem-statement: How can garages be accommodated without interrupting the walkable character of a neighborhood?

❖ ❖ ❖

Discussion: Garages on lanes or alleys are excellent solutions to the problem of vehicular dominance of streets. They offer parking, storage, and in some cases, accessory dwellings, which provide helpful "eyes on the lane" (as seen in the photo above).

However, there are a number of requirements to make garages on alleys or lanes work well. They must be spaced far enough apart to allow turning movement, typically no closer than 30' apart. They need to be designed as attractive structures in their own right, not unadorned "blank boxes." Their doors, in particular, should be carefully selected for appearance, in many cases including "lites" or glass sections. This is particularly important for the ends of blocks.



Examples of garages on lanes or alleys, with carriage houses in some cases, in (L) Orenco Station, Hillsboro, Oregon, (C) Snoqualmie Ridge, Washington, and (R) Kendall Yards, Spokane, Washington.

<u>Therefore</u>: Line the lanes with garages set back sufficiently, with attractive facades including glass doors. In as many places as possible, place carriage houses above. If needed, provide a surface parking space for the carriage house resident.

❖ ❖ ❖

Make the lanes as walkable as possible, with PEDESTRIAN-FRIENDLY HOME FRONTS...

PEDESTRIAN-FRIENDLY HOME FRONTS

Building fronts are appealing to pedestrians in Seabrook.

…In order to make the STREET NETWORK truly pedestrian-friendly, whether or not there are GARAGES ON LANES, the buildings must also have the proper orientation to the streets…

❖ ❖ ❖

Problem-statement: Too often, residential streets are unappealing to pedestrians.

Discussion: The problem is two-fold. One, too many streets have visually dominant and unattractive garages and cars parked in front, which create a cluttered and unappealing streetscape. Two, too many streets have buildings set back far from the street, which fails to create an interesting and appealing streetscape for pedestrians to explore.

One way to make the streets more appealing is to relocate garages and other off-street parking to the lane side, as discussed in the pattern LANE GARAGES AND CARRIAGE HOUSES. Another way is to use the GREENWAYS AND LANES pattern, to provide attractive pedestrian greenways. But another technique is needed, especially in areas where streets are busier, such as commercial centers: to use the building fronts themselves to become attractive features for pedestrians.

This can be done in two ways. One, buildings can be brought closer to the street and sidewalk – typically no more than 15 feet to the backs of sidewalks, with windows facing the street. And two, buildings can be designed with porches, balconies, galleries, stoops, and other "connective features" that provide interest.

Where garages do occur in the fronts, they must be designed with particular care. First, the faces of the garages should be pushed back at least the length of a car – between 14 and 20 feet – so that the front of the house does not resemble an unappealing parking lot. Second, the garages themselves should be designed with appealing garage doors, containing windows or "lites". Better yet, the garages should be at the rear behind the house, with the driveway running past the house.

Examples of attractive garage doors…

<u>Therefore</u>: Place buildings close to streets, no more than 12 feet from the back edges of sidewalks, and include windows, doorways, poches, balconies, and other features to create pedestrian interest and appeal. Push garages back at least 14 feet from the fronts of the buildings, and include attractive garage doors with door lites.

❖ ❖ ❖

Incorporate the human-scale characteristics of TRADITIONAL PEDESTRIAN-FRIENDLY BUILDINGS, including ORNAMENT**, LOCAL SYMMETRY*, SMALL GROUPS OF ELEMENTS, and FRAMING…

APPENDIX: What is a Pattern Language?

> *"The acclaimed 'Pattern Language' process... engages people at an earlier and higher level, asking them to describe a location's unique qualities and values; to imagine a sense of place, and types of use, before anyone even thinks about streets, parking, or buildings—something you just don't get with a traditional approach."*
>
> *- Skip Novakovich, LTC, USA, (Ret) President, Port of Kennewick, WA Commission*

A "pattern language" is a common methodology for sharing best-practice design solutions. The patterns can be applied in particular combinations that are unique to a given problem. In turn, the collection of patterns gathered for a particular project help to define its unique characteristics – its "DNA" so to speak.

In many fields today, pattern languages have been used successfully to develop and share effective design tools and strategies. In the field of urban planning and design, pattern languages have proven to be effective ways of sharing the vision and goals of a community, *before* getting into technical regulations (where they are needed at all).

Pattern languages were introduced originally in the 1977 book by the architect Christopher Alexander and his colleagues, *A Pattern Language: Towns, Buildings, Construction.* Since then, many authors have developed new patterns and pattern languages for a variety of specific projects. For example, the Port of Kennewick developed a pattern language for its Vista Field project in 2014.

Pattern languages can capture the community's aspirations for more livable neighborhoods, streets, and buildings, often following the precedents of great old neighborhoods and towns. These older patterns don't necessarily contradict "modern" standards for mobility, safety and convenience, but there is often a need to work out the ways that both goals can be achieved.

Unfortunately, since World War II, American suburban plans have too often thrown away many of the great old patterns and practices, in favor of the typical unwalkable landscape of strip malls, wide arterials choked with traffic, row after row of nearly identical houses, and other forms of development that compromise livability, desirability, and ultimately, even economic prosperity.

By contrast, market demand trends (and the preferences reported by stakeholders) are shifting toward more walkable, mixed, livable communities that offer transportation choice, and that don't rely exclusively on the car to get around. A more balanced, walkable community can also be a much more appealing, livable and economically valuable community.

For this reason, the Lewis and Clark Ranch pattern language includes a number of street patterns, and patterns relating to the positions of blocks, buildings and parking areas. The patterns emphasize smooth, fluid, but dispersed vehicular movement, spread across a wide network of walkable, attractive streets and lanes.

To develop the patterns, we began by creating a survey for stakeholders. We developed an initial list of 14 prototype patterns, each consisting of two forms: a "baseline" – the common ways of building streets and neighborhoods that have dominated since World War II – and an optional "best practice" version that reflects a vision of a more livable, attractive community. The latter alternatives are now considered "best practice" by many planners and designers, although they are not always easy to implement. The idea was that, while the team would propose the newer "best practice" options, the final decision as to which pattern was chosen rested with the citizens who live here.

The team then held an open planning workshop, inviting all members of the community to participate. Twenty-three people attended in person and took the survey during meetings open to the public, as part of the planning workshop process. An additional thirteen people later completed the survey online, through the City's public website. (A copy of the survey and its results is available on the City of West Richland website.)

The results of this survey showed that, on average, 62.2% favored the optional "best practice" pattern, while 37.8% favored the baseline or conventional solution. Only one was even close to favoring the baseline, the pattern of "garage in front" versus "garage in back on alleys" – and that was exactly 50% for each. (We took that to mean that either alternative was acceptable, so long as the garages were not too obtrusive in the front.)

In addition to these fourteen patterns, we also added sixteen patterns through the course of the planning workshop, totaling thirty patterns. The additional patterns reflected other common best practice features, including regional connectivity issues, landscape design features, and considerations for parks and schools.

This is not an exhaustive collection of patterns, certainly. Rather, it is meant to provide a solid point of beginning for planners, community leaders and developers, taking these patterns forward into implementation. They will be able to incorporate these patterns, as well as other patterns to be developed later with the stakeholders, into the design of the Lewis and Clark Ranch, its public design standards and zoning codes, and its private and owner regulations. The simple aim is to provide benefits to all through a more complete, more successful community.

Each pattern has a name, an iconic photo of the pattern in a typical context, a description of the problem or condition the pattern addresses, a discussion section, and finally, a conclusion, expressed as a "therefore" statement. In addition, each pattern has prescriptive language (and in some cases, diagrams) that can be used as part of a later design code or codes. Each pattern has "hyperlinks" or connections to other patterns, showing how they are connected. The links to patterns at larger scales come at the start of each pattern, and the links to patterns at smaller scales come at the end of the pattern. Many of the patterns also have footnotes to peer-reviewed research or other documentation of the evidence for the pattern and its validity.