





Presented at the National Conference of the American Planning Association in Las Vegas, Nevada, April 30, 2008, in Session S583 entitled “The 21st Century Community” chaired by Jordana Maisel of the IDEA Center at the University of Buffalo, NY. This document is formatted for online viewing.

<p style="text-align: center;">How to create Neighborhoods that Work for All?</p> <p style="text-align: center;">Levin Nock</p> <p style="text-align: center;">www.GreenwayNeighborhoods.net</p>	 <p style="text-align: center;"><small>GreenwayNeighborhoods.net</small></p>	 <p style="text-align: center;"><small>GreenwayNeighborhoods.net</small></p>
<p>1) I'm Levin Nock, a Greenbuilding Consultant with GreenwayNeighborhoods.net.</p>	<p>2) I help create neighborhoods that work well for everybody, the Green Way. Young people, elderly people, people with or without perfect sight and dexterity,</p>	<p>3) Folks who aren't even human, like birds and frogs and other urban wildlife.</p>
 <p style="text-align: center;">“How do we love All of the children of All of the species for All time?”</p> <p style="text-align: center;">- William McDonough</p> <p style="text-align: center;"><small>GreenwayNeighborhoods.net</small></p>	<p style="text-align: center;">Guidelines for Communities</p> <ul style="list-style-type: none"> • Ahwahnee Principles <small>Local Government Commission</small> • 10 Principles for Smart Growth <small>Urban Land Institute</small> • Charter of the New Urbanism <small>Congress for the New Urbanism</small> • Principles of Smart Growth <small>Smart Growth Network</small> • LEED-ND <small>United States Green Building Council</small> <p style="text-align: center;"><small>GreenwayNeighborhoods.net</small></p>	<p style="text-align: center;">Sustainable Communities</p> <p style="text-align: center;">Safe Dense Biodiverse Mixed Use</p>  <p style="text-align: center;"><small>GreenwayNeighborhoods.net</small></p>
<p>4) As the architect William McDonough says, “How do we love all of the children, of all of the species, for all time?” Questions like that can lead to communities that are more sustainable.</p>	<p>5) There are various guidelines and principles for better communities. In this presentation, I'll focus on three particular qualities of successful communities that are leading the way towards sustainability.</p>	<p>6) Most of them are unusually Safe, Dense, and Bio-Diverse, and the Density includes a broad mix of uses at a relatively small scale.</p>

AGENDA

WHY sustainable communities are
Safe, Dense & Biodiverse.

TOOLS to enhance
Safety, Density & Biodiversity.

IMAGINE living in a community that is
Safe, Dense & Biodiverse.


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**Why
are
Safety, Density & Biodiversity
so important for Sustainability?**

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Epidemic Inactivity

- Heart Disease
- Obesity
- Diabetes
- Depression
- Only 25% of Americans exercise enough to benefit their health (CDC 2006)



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First, I'll tell why Safety, Density, and Biodiversity so important. After that, I'll describe some tools that you can use to promote these qualities in your own work. I'll finish up with a brief story of what it can be like to live in a place that has these qualities.

Why are Safety, Density and Biodiversity so important for sustainability? Let's start with safety.

I've worked in the healthcare industry for many years, and I've realized that the rising epidemic wave of health problems in America like heart disease, obesity, diabetes and depression can be addressed better by urban planners and architects than by medical doctors.

**Space for daily activity =
Health**



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Walk or Bike to School



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What's missing?

- Safe paths
- Convenient destinations

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When people live in a space that supports, and encourages, and maybe even requires gentle daily exercise, then all of those problems are mitigated.

Most kids used to walk to school, every day. Very few do today, in the United States.

There are two main reasons why Americans do NOT walk or bike more. They do not have a place where they feel safe to walk or bike, and they do not have a convenient destination to go to. We'll start with the first problem, not feeling safe.



Automobile collisions involve tons of metal moving really fast. To prepare the occupants for collisions, cars are built with bumpers, seatbelts, airbags, high integrity passenger compartments, crushable hoods, crushable steering columns--all to help the occupants inside survive major collisions.

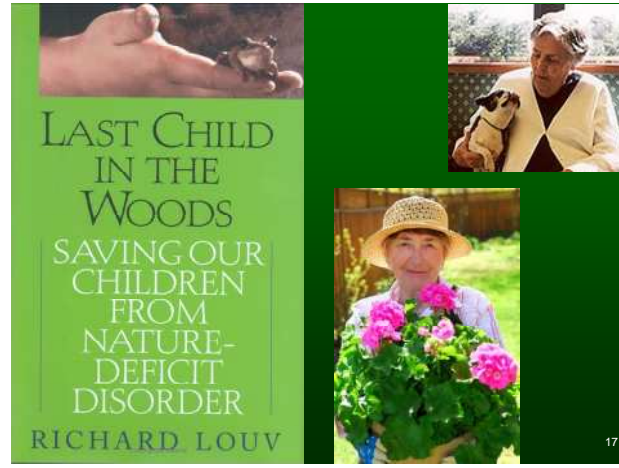
Nobody crossing the street on foot, or riding a bike, wears a set of air bags around them or a crushable hood, or even a big bumper. So, not surprisingly, in the US around 100,000 pedestrians and cyclists are injured by motor vehicles every year, and more than 5,000 are actually killed. In the lower left corner of this slide, this little old lady, just setting out in front of the big Mack truck, might be one of our next casualties.

People from 8 years old to 80 years old and beyond need a neighborhood with a network of pedestrian paths and bike routes that really, really, truly FEEL safe and ARE safe for everybody.

That also includes safety from crime. Many kids do not walk to school these days because their parents are afraid of stranger danger. Some of us know more about our favorite TV stars than we know about our neighbors.

In order for more Americans to spend time walking outdoors each day, where they could get some exercise and maybe even meet a few neighbors, they need a safe place to walk, and they need a destination to walk TO. Outdoors, most Americans will walk a quarter mile to an attractive destination like a park, movie theater, grocery store, or transit stop. If there's a really safe path for bikes and wheelchairs, the radius is larger, but still probably less than a mile.

Denser housing, with lots of little clusters of commercial centers in residential zones, enables more people to live close to these destinations. High residential density provides customers to support local businesses, workers in the businesses, plenty of riders for good service on public transit, and enough students so schools can be located nearby. When high density creates these walkable urban amenities, THEN density is perceived as GOOD. But without all of these attractive destinations, a dense residential area just feels crowded.



Why

- Safety: Essential for healthy exercise
- Dense Mixed-Use
 - Nearby destinations promote healthy exercise
 - Local businesses have customers & workers
 - Robust public transit service
- Biodiversity
 - Pleasant paths promote healthy exercise
 - Healthier & happier

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As we all know, diversity is good. A community of people with different perspectives and talents, can respond to new situations more creatively and flexibly. Well, you can take that a step further, and say that Bio Diversity, with many different species, helps a community be more flexible, adaptable, and frankly, delightful. When we spend time outdoors in natural surroundings, that include other species besides humans, then we feel better. E.O Wilson created the word 'biophilia' to describe this idea.

When adults, and especially kids, do not spend enough time in nature, they can have emotional difficulties that Richard Louv calls 'Nature Deficit Disorder'. In hospitals, several studies have documented how patients heal faster when they can see a natural view. Carol Venolia tells how our senses need nourishment from complex and dynamic patterns of light and sound and touch and smell, that occur, well, naturally, in a biodiverse setting. More and more retirement homes use therapy dogs to cheer up their patients. Many seniors take delight in growing flowers or vegetables.

That was a very brief review of the importance of Safety, Density and BioDiversity. Unless residents feel safe, they'll probably drive everywhere, burning gasoline and making traffic jams, and the only exercise they get is from gripping the steering wheel really tight. In a dense mixed-use neighborhood, residents of all ages, with or without a drivers license, have more places to walk to and enjoy, such as local business and a good transit stop. In a neighborhood with plenty of biodiversity, residents will enjoy the walk more, because there's something to see and appreciate along the way.



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Corover Commons Cottages, www.RossChapin.com

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How
to create more
Safety, Density, BioDiversity?

Use TOOLS!



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Safe Places to Walk and Bike

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In a community like this, people are healthier and happier. They're buying less gasoline, exercising more, and meeting more of their neighbors. Kids can play without a chauffeur, and elders can age gracefully in their own neighborhood, instead of moving to a faraway retirement home as soon as they give up driving.

HOW exactly can you create more of this good stuff next week? I'll give a very high-level overview next of some tools. If any of these tools seem useful to you, and you choose to learn more details about them, then you really CAN create safer, healthier, more sustainable neighborhoods.

For safety, as I mentioned before, everybody needs a safe place to walk and ride a bike or a wheelchair, especially the young and the elderly.

Bicycling in motorized traffic is stressful & dangerous.

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Who Bikes?

< 10% **Fearless**, physically fit for bike lanes & street crossings

> 50% Want to bike **SAFELY**

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Safe Walking & Biking

- SSSlooooooww cars < 10 mph
 - Bike Boulevards
 - Home Zones / Woonerfs
 - Intersection Repair
- Physically separated space
 - Tunnels
 - Overpasses
 - Bike paths, not bike lanes

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Even in Portland, Oregon where I live, one of the most bike-friendly cities in North America, a recent survey showed that less than 10% of the population rides a bicycle regularly.

They're the fearless road warriors. Lots more people would LIKE to ride a bike MORE, if we had a SAFE place to do it.

There are two different ways to create this safety. Either you slow the cars way down, to 5 or 10 miles an hour, or, you create a physically separated pedestrian network with its own tunnels and overpasses. Both ways work a lot better than regular streets with street crossings where little old ladies get run over by Mack trucks.

Bike Boulevards



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Here's a view of the first idea, slowing the cars down. On a bike boulevard, cars are allowed for local access, but the bikes have the right-of-way.

Woonerfs in the Netherlands



Rijsvijk

www.hamilton-baillie.co.uk

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For a paved area shared by everybody, in the Netherlands it's called a 'woonerf'.

Home Zones in UK



Charlotte St, Morice Town, Plymouth

neighborhoods.typepad.com

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In the UK they call this a "Home Zone". They might plant some trees in the middle of the road, or make the roadway so narrow that you can only drive 5 mph without crashing into somebody's house.

Intersection Repair



Portland, Oregon
City Repair



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www.StreetFilms.org

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In Portland, a grassroots group creates little pedestrian plazas at the intersections of residential streets, where people can hang out and meet the neighbors.

Pedestrian Tunnels & Bridges cross arterials safely



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For the second idea, here's a pedestrian tunnel and a pedestrian bridge.

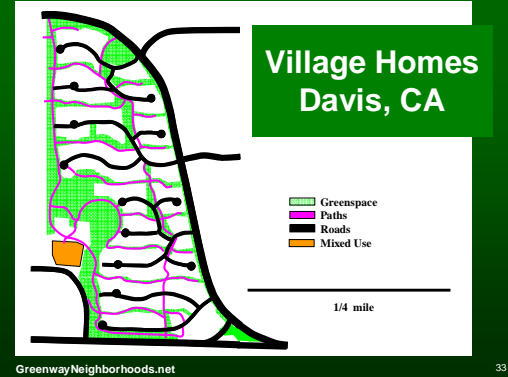

Physically Separated Bike Paths



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And here are some bike paths that are separate from the roadway, behind a line of trees. As a planner, if you see a proposed street section with bike lanes, think about moving those little strips of pavement away from the roadway, to keep the cyclists really safe from cars and trucks.

<p>Safe Feeling = Belonging</p> <p>GreenwayNeighborhoods.net 31</p>	<p>Scale: 400 to 800 Residents Neighborhood = Tribe</p> <ul style="list-style-type: none"> • 500 people know each other <ul style="list-style-type: none"> – Native cultures, prehistoric tribes – Communes: Shakers, Amana, Oneida – Elementary principal knows all students – Most people know 400 to 800 names & faces – Towns > 1000 need law enforcement <p>“Human Scale” pp.180-185, Kirkpatrick Sale</p> <p>GreenwayNeighborhoods.net 32</p>	 <p>Village Homes Davis, CA</p> <p>GreenwayNeighborhoods.net 33</p>
<p>To feel safe, people need to feel that they belong somewhere. The inside of my car feels comfortable and safe, and it’s mine. How can a walk through my neighborhood feel at least as good as that? This is a controversial topic, but I am a firm believer in creating well-defined, physically bounded neighborhoods of less than 1000 residents each, to get a small-town feeling.</p>	<p>There’s plenty of anthropological evidence to support this, but one of the main benefits is less crime. When towns grow larger than 1000 residents, they hire police.</p>	<p>Village Homes of Davis CA, is a suburban subdivision of about 800 residents, with a clear physical boundary around the outside, and with separate pathways for walking and biking (shown here in purple), so people feel safe to get out of their cars. Their crime rate is one tenth of a comparable subdivision nearby.</p>
<p>Law enforcement understaffed? Try walkable neighborhoods < 1000 people</p> <p>Village Homes, Davis CA</p> <ul style="list-style-type: none"> – Crime rate 90% lower – Know 2x neighbors – 4 of best friends are neighbors (0.4 for nearby subdivisions)  <p>GreenwayNeighborhoods.net 34</p>	<p>Tools address safety issues:</p> <ul style="list-style-type: none"> • Safe Walking • Safe Biking • Crime • Stranger Danger <p>GreenwayNeighborhoods.net 35</p>	<p>Tools for Dense Mixed Use</p> <ul style="list-style-type: none"> • Incentives for keystone attractions • Tax Shift: tax the land, not the buildings <p>GreenwayNeighborhoods.net 36</p>
<p>Just imagine, if you work your town planning magic, and cut the law-enforcement workload by 90%, your police force will be dancing in the streets.</p>	<p>So that’s an overview of some tools to address various safety issues.</p>	<p>Next we’ll talk about some ways to promote density, particularly dense mixed use.</p>

Dense Housing Costs More to Build

Cheap to build



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Expensive to build



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Density: Keystone Attractions

Marginal Impact on Residential Pricing
(data from Johnson Gardner LLC)

\$\$\$	Cinema	+30%
\$\$	Wine bar/shop, Garden/Yard Art, Specialty Grocer, Book Shop, Fitness	+5% to +20%
\$	Coffee/Espresso, Bike Shop, Gourmet/Exotic Restaurant, Brewpub, Gourmet Bakery, Boutique Shop	-5% to +5%
-	Spa, Bar/Pub, Bistro/Cafe, Music Shop	-5% or lower

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To create mixed-use neighborhoods, break up single-use residential zones with many neighborhood centers.

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Many planners in sprawling suburbs want to encourage higher density. The problem is, when things are spread out, then the cost to developers is low. To justify the extra cost of dense housing, developers need to charge premium prices. As a planner, how can you help developers get the higher prices they need, so they can afford to build the higher density that you need? One tool for this, is to give incentives for building and running popular destinations.

In Portland, Johnson-Gardner LLC did a survey of five walkable neighborhoods and found that property values rise near things like specialty grocers, and book shops, and especially cinemas. This was a small pilot study, and details may vary from city to city, and admittedly, Portland is weird. But still, if you could subsidize a bunch of little neighborhood movie theatres, or whatever it is that your own citizens like the best, that could leverage a huge amount of private money, to make denser, walkable neighborhoods.

Doing that would be easiest in a brand new subdivision, but you can also encourage infill in an existing suburb. You can break up single-use residential zones by adding new neighborhood centers, to get attractive destinations within walking distance of more and more residents.

To create mixed-use neighborhoods,
break up single-use commercial
zones with new housing.

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To create mixed-use neighborhoods,
create safe trips & destinations for
Walk/Bike/Wheelchair.



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Tax Shift

To get less of something,
tax it.

To get more buildings
on less land,

tax the land & not the buildings.

Chrysler Building built 1920's, no building tax.
James Duncan Davidson, Photographer

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Or, if there's already a big commercial area where lots of people shop or eat or work, then add some housing in the middle of it. You can work together with a good developer to take a dying suburban mall or even a half-empty office park, and transform all that empty asphalt into a thriving little downtown center where people live and work and eat and shop. Personally, I think that all big box superstores should be required to have a few stories of affordable housing on the roof.





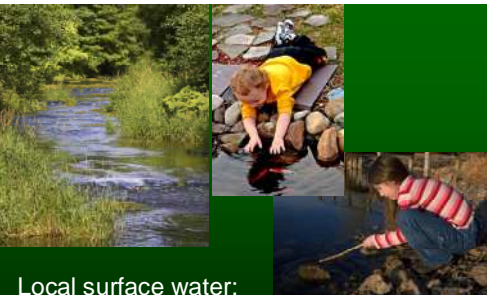


If the businesses might want extra customers from other neighborhoods nearby, then create a system of bike paths and bike boulevards, so people can ride their bikes and wheelchairs to the commercial center in easy, relaxed safety.

This next tool is good for anybody on a tight budget, because it costs almost nothing. It requires political persuasion, but not much money.

As those of you know who are government employees, taxes are your friend. You can rewrite one little piece of tax code, and before long you're living in a different world.

If you don't like something, then tax it, and pretty soon there will be less of it. If there's a place where you want a denser, more walkable community, that means you want more buildings on less land. If you tax the land, and not the buildings, then you get more buildings on less land.

Your city government does not lose any revenue. All you do, is change the details about how you collect the same total sum of property taxes, calculated only from the value of the land, and NOT from the value of improvements. This tool has been used successfully in various places and times, including New York City in the 1920's, to remedy a housing shortage after World War One.

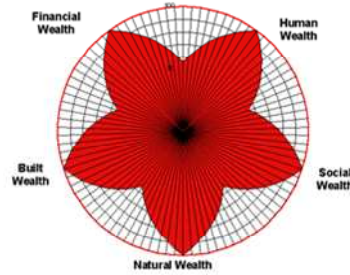
<p style="text-align: center;">Biodiversity?</p>  <p style="font-size: small;">GreenwayNeighborhoods.net 43</p>	<p style="text-align: center;">Biodiversity</p>  <p style="font-size: small;">GreenwayNeighborhoods.net</p>	<p style="text-align: center;">BioDiversity</p> <p style="text-align: center;">To invite wildlife into town, offer them something to drink.</p>   <p style="font-size: small;">GreenwayNeighborhoods.net 45</p>
<p>When high density comes without any biodiversity, many people don't like it, including me.</p> <p>But a city can require dense urban spaces that preserve a rich biodiversity, while supporting a rich, vibrant, urban community life.</p>	<p>For instance, Berlin and Seattle both use a green area ratio on new construction. It's sort of like a floor area ratio FAR, but it basically means that if the entire building lot is paved, then you have to add a bunch of trees, or a greenroof, or something else that's green and growing.</p>	<p>To create biodiversity, you create habitat for each species that you want to attract. For instance, most living things, animal and vegetable, need a good source of water. If you manage your stormwater on the surface, with bioswales and urban streams and landscaped detention ponds, then that's good for wildlife, and it might be cheaper to build than stormsewers.</p>
 <p>Local surface water: see, touch & enjoy the local watershed.</p> <p style="font-size: small;">GreenwayNeighborhoods.net 46</p>	<p style="text-align: center;">CURIOSITY</p>  <p style="font-size: small;">GreenwayNeighborhoods.net 47</p>	<p style="text-align: center;">Zero step entrance for wheelchairs and walkers</p>  <p style="font-size: small;">GreenwayNeighborhoods.net 48</p>
<p>Another species that values surface water is humans. We like to look at it, we like to hear a stream bubbling by, some folks even like to play in it.</p>	<p>The final tool that I'll mention, is curiosity. If you ask great questions, and listen carefully to all the different responses, then you've got a better shot at creating great places. How does that work, you might ask? You listen to everybody, and get a better result that's not just a mess? Well, what a few people require, other people appreciate.</p>	<p>For instance, folks in wheelchairs require a zero-step entrance.</p>



Many people benefit from having a zero step entrance

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Tools for Curiosity: Sustainability Indicators



www.anielski.com

Sustainable Communities

Safe



Dense
Mixed Use



Biodiverse





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Other folks might not absolutely need it, but anyone who's ever rented a U-haul™ truck will probably appreciate it.

Be curious. How can you create a place where everybody lives well? Where everybody is safer and healthier and happier? The nation of Bhutan is governed to maximize the Gross Domestic Happiness. If you look beyond simple economic indicators, you can use sustainability indicators to measure your progress towards sustainability, whatever that means to your own constituents.

What's it like, to live in a community that is Safe, Dense, and Biodiverse? Well, the kids walk to school safely, and after school they have some convenient places to go play with their friends, without a chauffeur. Younger kids stay within sight and earshot of the kitchen window, and parents of older kids can trust that there's a whole neighborhood of 5 or 6 hundred people to help keep their kids safe and out of trouble. For commuting, most of the adults walk or bike to the town center, at least in good weather. Some work there, and others catch public transit to other town centers. As people age, they can still move around safely and easily, in their own neighborhood. Some seniors keep their own homes, and others move into granny flats and condos in the same neighborhood. Many seniors hang out around the public spaces, watching the world go by, chatting with neighbors, and maybe even sharing some of their wisdom with the kids.

<p style="text-align: center;"><u>SUMMARY</u></p> <p>WHY sustainable communities are Safe, Dense & Biodiverse.</p> <p>TOOLS to enhance Safety, Density & Biodiversity.</p> <p>IMAGINE living in a community that is Safe, Dense & Biodiverse.</p> <p><small>GreenwayNeighborhoods.net 52</small></p>	<p style="text-align: center;">Acknowledgements & Appreciation</p> <p><small>Photos StreetFilms.org StreetsBlog.org Mcdonough.com RossChapin.com BostonsWorld.com ConcreteChange.org WhirlwindWheelchair.org CharlottesvillePiano.com City of Austin, Texas website Fotolia.com, Stockxpert.com The Pedestrian Safety Roadshow James Duncan Davidson, Photographer Walkable Communities Inc, walkable.org Local Government Commission, LGC.org Kaw Valley Heritage Alliance StreamLink Program</small></p> <p><small>Support & Editing Magy Oriah Nock, Real Estate Broker</small></p> <p><small>GreenwayNeighborhoods.net 53</small></p>	 <p style="text-align: center;">Levin Nock, Ph.D. Greenbuilding Consultant Lnock (AT) comcast.net 503-706-2101</p>  <p style="text-align: center;">www.GreenwayNeighborhoods.net</p> <p><small>54</small></p>
<p>In conclusion, safety, density and biodiversity are all really important, if your community wants to be sustainable. I've told a little about why that's true, and given a glimpse of some tools that you can learn more about, and use.</p>	<p>I'm very grateful to all the sources of pictures that I showed, to help illustrate these ideas.</p>	<p>For more information, I'll be glad to talk with you later, and there are more details on my website, GreenwayNeighborhoods.net.</p>

For more resources about these topics, please see the "Links" at http://www.greenwayneighborhoods.net/About_Us.html