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**Some Grounding Questions**

- Who here lives in a single family home?
- Who has a car that gets more than 35 miles to the gallon?
- Who has chosen to take transit over driving in the past week?
  
- We all make rational choices, based on....

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**Our values, motivations and class**

➤ Order & Laws	➤ Randomness
➤ Safety/Fear	➤ Tolerance/Diversity
➤ Comfort zone	➤ Consumption of experience
➤ Consumption of Stuff	➤ Community Responsibility
➤ Personal Responsibility	➤ Individual
➤ Family	

➤ Suburban Development	➤ Smart Growth
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**Smart Growth may not be for everyone.....It may not reflect some peoples values**

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**Growth!**  
Environmental Quality | Economic Vitality

## Principles of Smart Growth

- Mix Land Uses
- Provide a Variety of Transportation Choices
- Foster Distinctive Communities with a Strong Sense of Place
- Encourage Community and Stakeholder Collaboration
- Make Development Decisions Predictable, Fair and Cost Effective

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**Growth!**  
Environmental Quality | Economic Vitality

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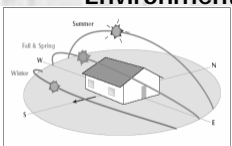
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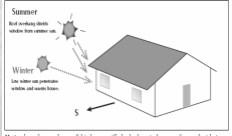
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**Growth!**  
Environmental Quality | Economic Vitality

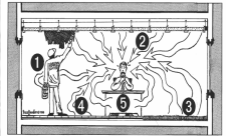
## Range of Housing Choices: Environmental Considerations



- Active and passive solar & southern exposure – house orientation
- Indoor air quality for health
- Size matters



Notice how the orientation of this house will shade the windows on the south side in summer. But not in winter, when the sun's lower is needed.



Numbered arrows indicate different indoor air quality considerations.

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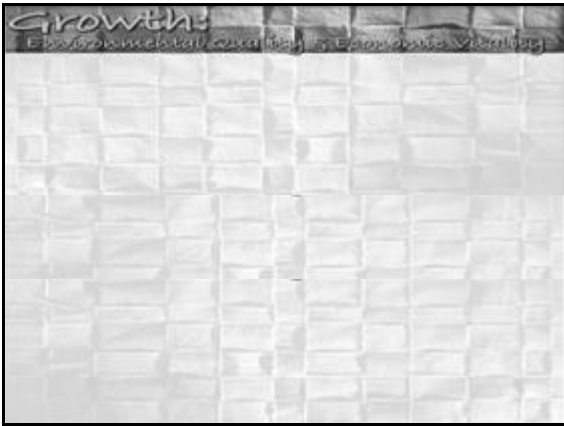
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**Growth!**  
 Environmental Quality | Economic Vitality

## Sustainably Designed Streets

### What should a green street do?

1. **Serve multiple users**
  - Place pedestrians/cyclists on equal footing with automobiles
  - Accommodate cars and transit vehicles
  - Serve aging & disabled population
  - Fire and safety vehicles
  - Utilities right of way
  - Aesthetics – homeowners, retail, office uses, etc.
  - "Community living room" – garage sales, block parties, farmer's markets, play area, events, etc.
  - Equity – quality streets in all neighborhoods, different communities want different street programming

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**Growth!**  
 Environmental Quality | Economic Vitality

## Green Street Techniques


2. **Reduce stormwater** – grassy swales, infiltration planters, flow-through planters, street swales, curb cuts, minimize impervious surfaces etc...




Curb cut



Infiltration Trench with Side Swale



Lowered infiltration planter with overflow catch basin and curb slots



Infiltration Trench with Side Swale

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**Growth!**  
 Environmental Quality | Economic Vitality

## Green Street Techniques

3. **Include greenways** – dedicated paths to bicyclists and pedestrians
4. **Change Street Design** – traffic circles, curb bulges, pedestrian refuge, Street Edge Alternative streets, etc.



Traffic Circle



Curb Extension

Seattle SEA (Street Edge Alternative) Streets: flat curbs to allow water to flow onto grassy swales

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**Growth!**  
 Environmental Quality & Economic Vitality

## Green Street Techniques

- 5. Improve the urban forest to reduce heat island effect, provide habitat, Water efficient native landscaping
- 6. Reduce materials and energy use
  - Use energy efficient lightening; low light pollution
  - Use alternative materials – cost of asphalt will double in next 5 years



*One large shade tree can provide cooling equal to a four-ton air conditioner*




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**Growth!**  
 Environmental Quality & Economic Vitality

## Sustainable Street Materials

- Pervious paver block systems
- Pervious concrete mixes
- Pervious asphalt mixes








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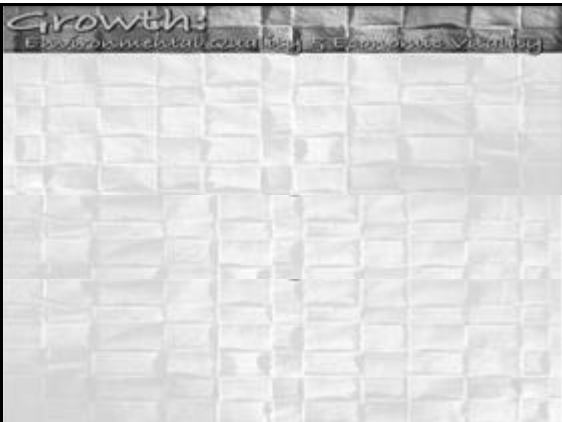
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**Growth!**  
 Environmental Quality & Economic Vitality




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**Growth!**  
 Environmental Quality | Economic Vitality

**Direct Development  
 Towards Existing Communities**

- Loss of 2 million acres of farm land and open space per year
- Ground water recharge and storm water runoff
- Reduce materials use for infrastructure development (sewer, water, roads, lighting, etc)
- Reduce auto-miles and green house gas production

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**Growth!**  
 Environmental Quality | Economic Vitality

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**Growth!**  
 Environmental Quality | Economic Vitality

**Preserve Open Space, Farmland, Natural Beauty  
 & Critical Environmental Areas**



- Market value of homes is 20% higher when proximate to parks (500 to 2,000 feet)
- Passive parks increase market value more than active parks
- Well maintained parks with visibility from near-by streets are best
- Pocket parks and linear parks that directly back onto housing, reduce the market value of those homes.

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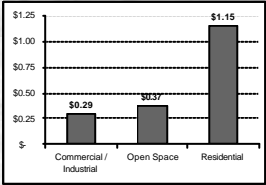
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**Growth!**  
Environmental Quality & Economic Vitality

### Preserve Open Space, Farmland, Natural Beauty & Critical Environmental Areas

Fiscal Impact of parks

- Parks generate \$0.37 in cost for every \$1.00 in revenue they generate.
- Residential uses generate \$1.15 in costs for every \$1 in revenue



Category	Cost per \$1.00 Revenue
Commercial / Industrial	\$0.29
Open Space	\$0.37
Residential	\$1.15

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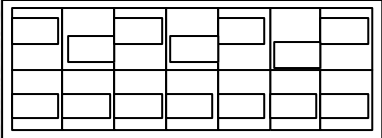
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**Growth!**  
Environmental Quality & Economic Vitality

### Open Space & The Urban Farmer

How can we incorporate the "need to work the land" and our need for "open spaces" into smart growth practices?

- Community Gardens
- Courtyard Housing
- Alternating House sites




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**Growth!**  
Environmental Quality & Economic Vitality

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**Growth!**  
 Εξασφάλιση καλύτερης ποιότητας | Εργαστήριο Βελτιστοποίησης

## Examples: Materials

**Cellulosic Insulation**

- Increased fire resistance (25-50% over fiberglass) improved safety from smoke
- Higher insulation value & coverage
- Recycled material, no VOCs



**Straw Board**

- Engineered board product made from straw fibers and non-toxic resins. Superior properties of moisture swell, elasticity, internal bond, density and strength
- Suited for normal or sensitive applications in both residential and commercial settings.
- Price falls between particleboard and MDF.
- Used for furniture, door cores and cabinet cases. It can be painted or laminated with wood veneers, melamine and vinyl.
- Renewable resource: wheat farmers must remove straw residue following the annual harvest. In the past, they burned fields & created air pollution.




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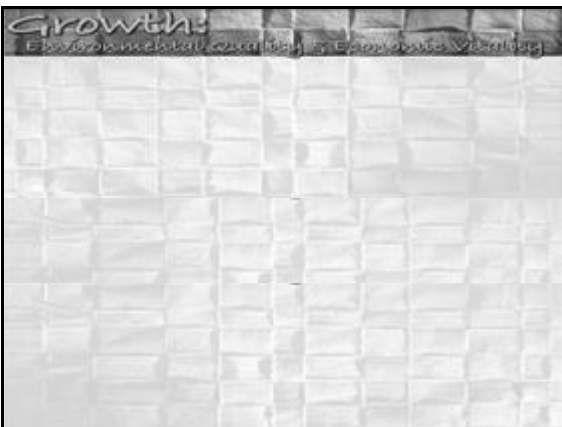
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**Growth!**  
 Εξασφάλιση καλύτερης ποιότητας | Εργαστήριο Βελτιστοποίησης

## Mix of Uses

**Risks**

- Mixed-use developments have greater front end risks that create a higher "price of admission." Risks include more complex entitlements process, financing from multiple sources, and the need to penetrate different markets simultaneously.

**Benefits**

- Diversified projects can better handle economic downturns, (one market will always be up)

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**Growth!**  
Economic Vitality, Quality of Life, Economic Vitality


## Mix of Land Uses

➤ **Retail has Gone Wild**

What is the cost of retail on the bottom floor of every mixed-use infill project?

- Economic cost to developer
- Social cost to community

➤ How many roof-tops are needed to create demand for 1,000 SF of retail?



Required Residents Per Supportable Store in a Mixed Use Project						
	Annual Sales	Store Size (SF)	Store Revenue	CA Sales Per Capita	Residents / Store	Units/ Store
Apparel Store	\$ 206	1,000	\$ 206,000	\$ 422	483	483
Stationery/Gift/Battery	\$ 140	1,000	\$ 140,000	\$ 51	2,745	995
Jewelry	\$ 264	1,000	\$ 264,000	\$ 67	3,940	1393
Grocery Store	\$ 720	30,000	\$ 21,600,000	\$ 540	39,993	13331
Restaurants	\$ 276	4,000	\$ 1,080,000	\$ 111	2,514	795
Home Furnishings	\$ 200	4,000	\$ 800,000	\$ 300	3,045	1095
Personal Services	\$ 200	1,000	\$ 200,000	\$ 300	762	264

Source: Ware-Jones Consulting, 2005, U.S. Mail Merchant Index, California EDI, 2005

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**Growth!**  
Economic Vitality, Quality of Life, Economic Vitality

## Mix of Land Uses

**What else goes on the ground floor ?**

- Non-profits & arts
  - Social service organizations
  - Day care & elder care
  - Performing arts
  - Visual Arts
  - Active livework for artists
- Stoops and pedestrian-friendly residential entrances outside of the retail core
- Dare I say..... parking

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**Growth!**  
Economic Vitality, Quality of Life, Economic Vitality

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**Growth!**  
Economic Quality Economic Variety

## A Variety of Transportation Choices

The high cost of parking

- Assume land costs of \$25/SF and 350SF/Space: a single surface space = \$10K, a 3 story garage space = \$18K.
- Just like in Monopoly everyone wants to hit free parking
- 99% of all car trips end in a "free" parking space. Non-car users indirectly pay for parking through rents and prices.
- High parking requirements do kill great projects.
- Ugly urban form




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**Growth!**  
Economic Quality Economic Variety

### Site Specific Parking Alternatives

- Reduce parking requirements 1/500SF
- Maximum parking requirements
- Parking in-lieu fee
- Car-share
- Showers and bicycle storage in building design
- Build within a half mile of transit

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**Growth!**  
Economic Quality Economic Variety

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**Growth!**  
Economic growth, quality of life, Economic Vitality

### Distinctive, Attractive, Tolerant Communities with Strong Place

Cities and the Creative Class Richard Florida

- Cities like Portland, Seattle, Minneapolis, New York, San Francisco, Santa Cruz, Austin, Ann Arbor, San Jose, Madison, Kalamazo, etc.
- Three T's of economic growth: **technology, talent, tolerance**
- Tolerant and welcoming communities attract the technology and the talent ("the Bohemian and gay index")
- The talent (or the creative class) makes up 30% of workers 47% of income, employed in science, engineering, R&D, tech, arts, design, health care, finance & law

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**Growth!**  
Economic growth, quality of life, Economic Vitality

### Understanding Place & Community

- Firms cluster to capitalize on talent.
- Educational attainment is the single strongest predictor of economic success for the individual and for a region.
- Talent gravitates towards places that are inclusive, diverse, and offer abundant high-quality experiences. Talent is diverse.
- Weaker social capital ties, less stable, more innovative
- Urban form reflects the cultural mix- coffee shops, live music venues, great restaurants, funky housing, excellent outdoor recreation, the X games, cutting edge arts, fashion, etc.

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**Growth!**  
Economic growth, quality of life, Economic Vitality

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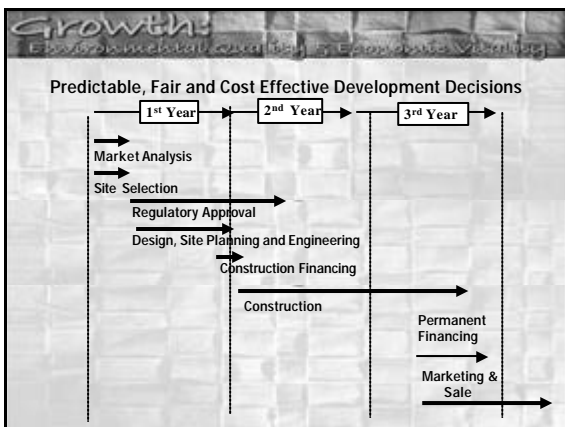
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### What does delay do to the IRR?

- \$37 million mixed-use project
  - 100 2 BR units
  - 15,000 SF Retail, 10,000 SF Restaurants
  - 5,000 SF Plaza
  - 162 parking spaces
  - IRR = 19%
- Six month delay IRR = 16%
- One year delay = 12%
- Two year delay = 9%

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**Growth!**  
Environmental quality in Economic World

### Our Current Paradigm

- Tax Base
- Jobs
- Economic Growth
- Consumption
- Status

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**Growth!**  
Environmental quality in Economic World

### What is in our Future?

- Rising Gas Prices
- Ecological Extinction
- Climate Change
- Consumption
- Rising Sea Levels
- The Credit Government
- Walmart
- The Credit Economy
- 800+ channels of TV
- One book a year

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**Growth!**  
Environmental quality in Economic World

### What is the new paradigm?

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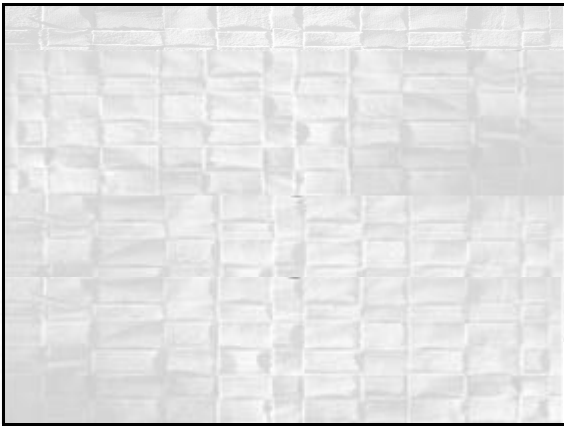
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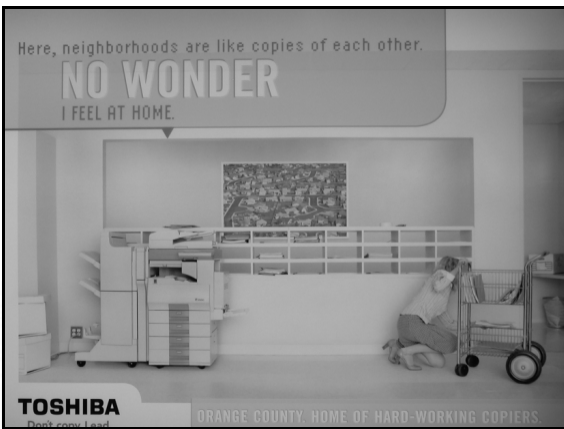
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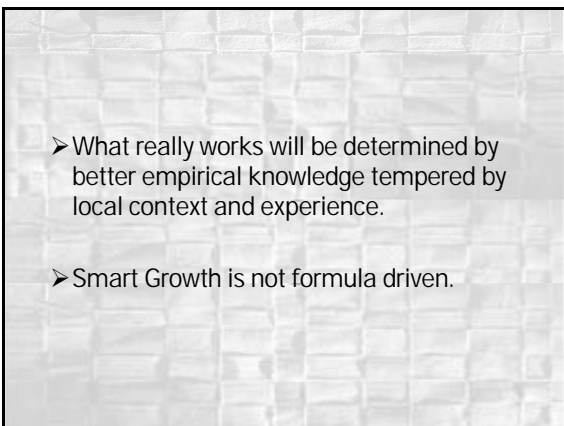
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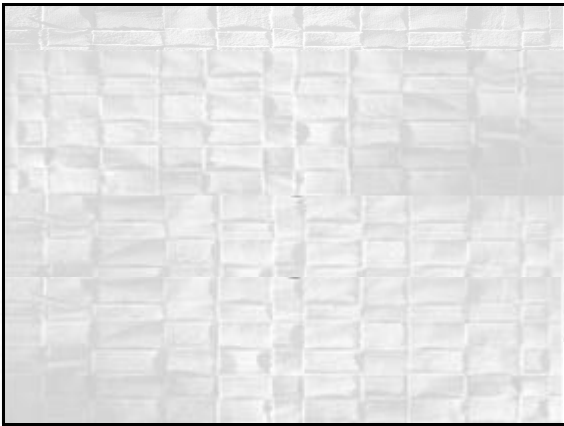
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**Principles of Smart Growth**

- Create range of housing opportunities & choices
- Create walkable neighborhoods
- Strengthen & direct development towards existing communities
- Preserve open space, farmland, natural beauty & critical environmental areas
- Take advantage of compact building design

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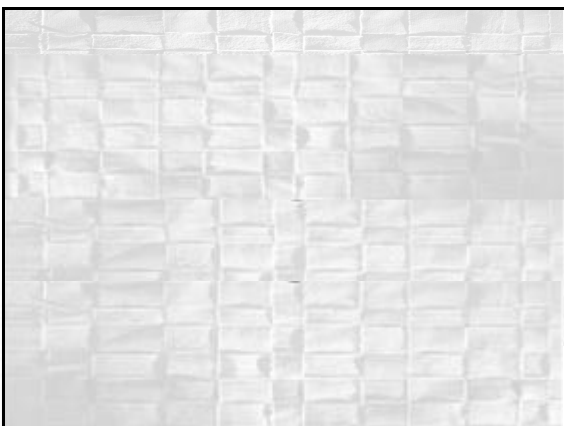
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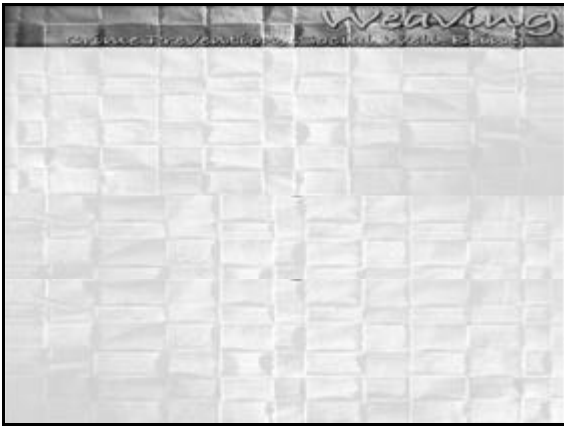
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**Research relates crime to**

- Specific site, district or neighborhood attributes
- "Neighborliness" and social cohesion
- Traffic and transit patterns
- Changes in demographics or length of occupancy
- Ineffective rules or policies
- Activity schedules or routines
- Educational attainment and economic stability

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**Weaving**

### Offenders ask themselves

- How easy is the area to enter?
- How visible, attractive or vulnerable do targets appear?
- What are the chances of being seen?
- If seen, will anyone do anything about it?
- Is there a direct and quick route to leave once crime is committed?

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**Weaving**

### Five "Fear" Basics

- Fear is widespread
- Fear is not evenly distributed
- Fear makes people feel uncomfortable emotionally
- Fear prompts people to adopt defensive measures
- Fear of crime does not parallel actual crime

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**Weaving**

### Disorder

- Fear is often triggered by conditions of disorder
  - Graffiti, noise, homeless, blight
- When disorder reaches a critical mass, crime conditions and urban decay are typically fostered

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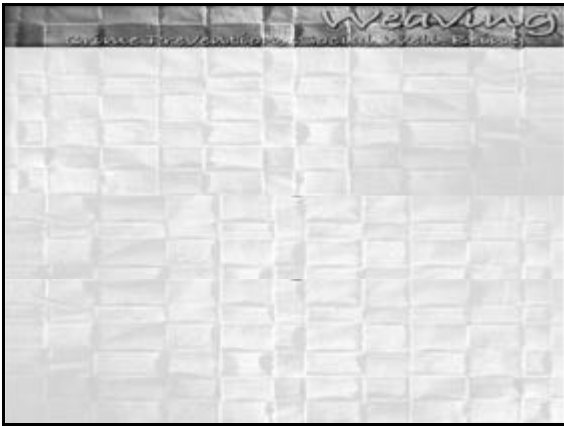
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### What Do We Know About "Place" & Crime ?

- "Place" plays as important a role in the drama of crime as do "victims" and "offenders"
- There are three basic types of "places," each amenable to specific types of prevention strategies:
  - locations (i.e. specific addresses)
  - places (i.e. parks, schools, etc.)
  - areas (i.e. neighborhoods)

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- Neighborhood features & conditions contribute to residents getting out and about (Nassar & Julian 1995; Kelling & Coles 1996)
- Neighborhood blocks are essentially behavior settings that can influence social relations (Mayo 1979)

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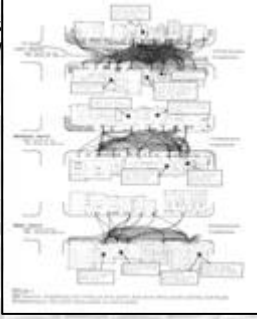
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**Weaving**

➤ Neighborhoods that balance vehicular & pedestrian needs increase residents' familiarity & interaction with one another (Apleyard 1981)

➤ Walkability contributes to self policing by neighbors - "keep the peace through peaceful means" (Newark, NJ Foot Patrol Experiment, Diggs Town, Minnie Street, etc.)




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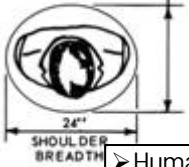
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**Weaving**


**BODY ELLIPSE**  
18" BODY DEPTH



24" SHOULDER BREADTH

➤ Human Widths

- Walkway Width Min.
  - 5 feet, 6 feet pref.




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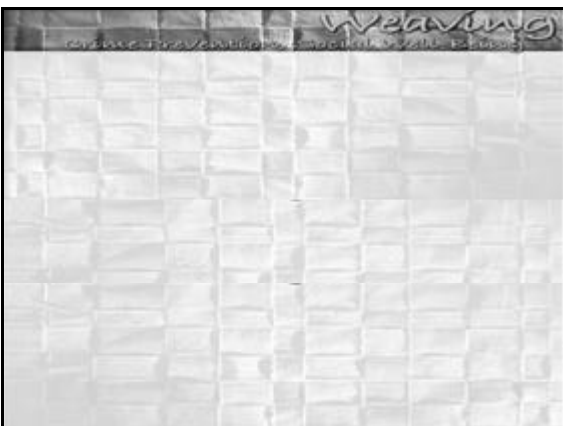
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**Weaving**




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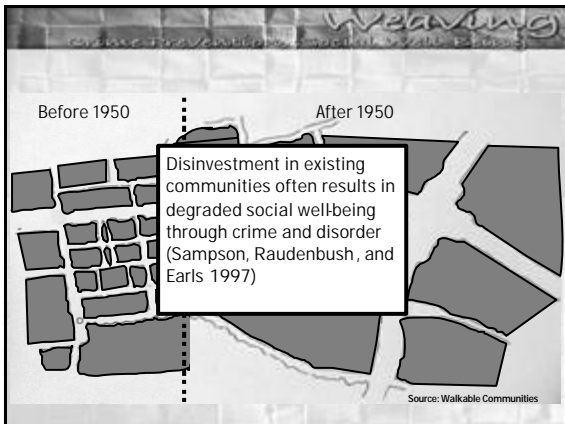
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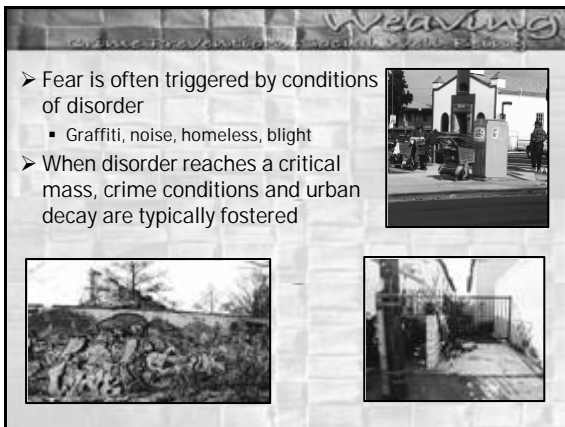
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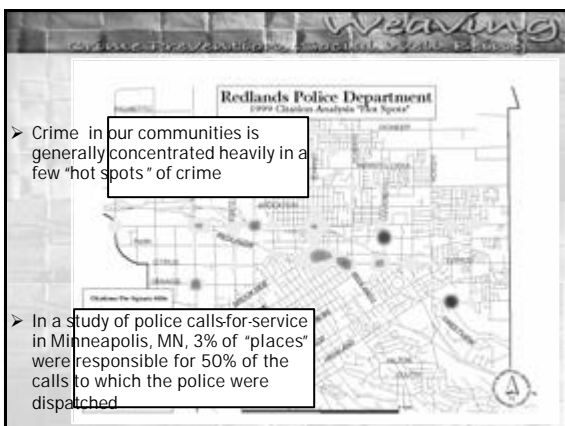
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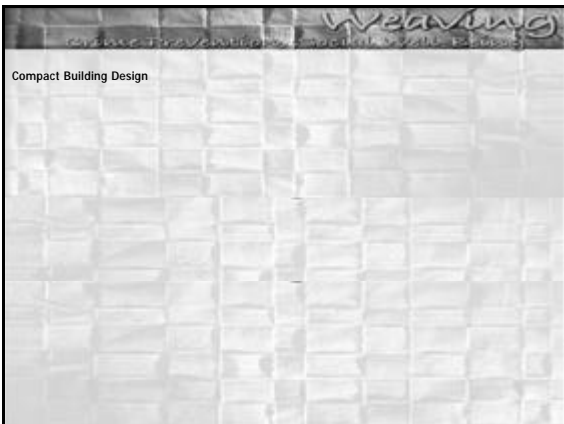
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**Weaving**  
Compact Building Design

➤ **Walking Speeds**

- Average Adult
  - 260 feet per minute
- Grades of 6% or less
  - Walking speed unchanged

➤ **Walking Distances**

- 700' average in U.S.
- 250' to 500' average block lengths
- 1320' = ¼ mile walk
- Interesting environment extends walking distance comfort



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Weaving

Seeing & Being Seen

- To feel safe, we need to know that others are aware of our presence. Likewise, it is important that we are aware of the people and activities going on around us.



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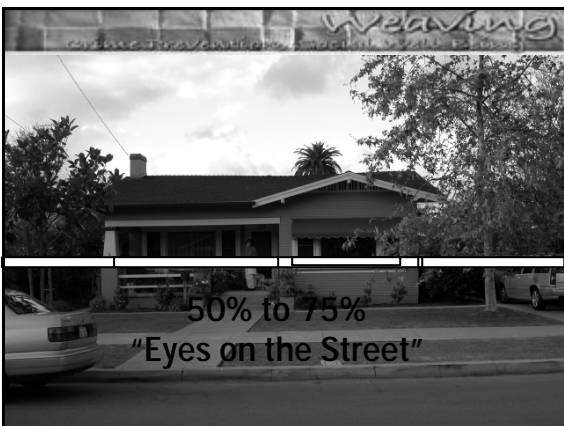
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Weaving



50% to 75%  
"Eyes on the Street"

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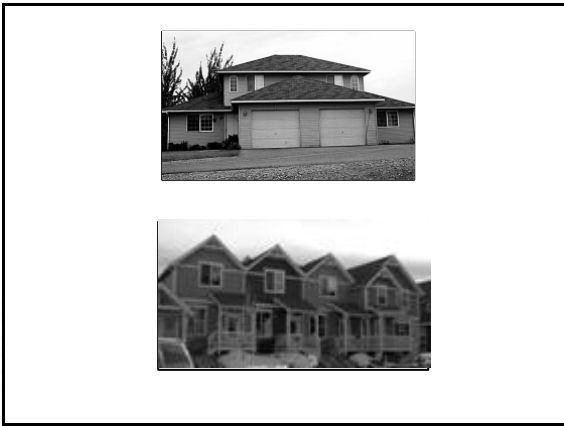
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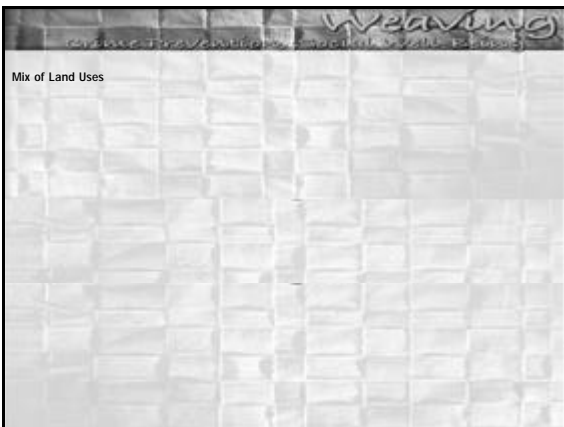
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**Weaving**

- Homogenous land use patterns create predictable patterns
- Criminals like predictable patterns to maximize reward & minimize risk
- 25% of American parents said they would be less concerned about leaving children home alone if they had a nearby neighbor who could help with emergencies or problems


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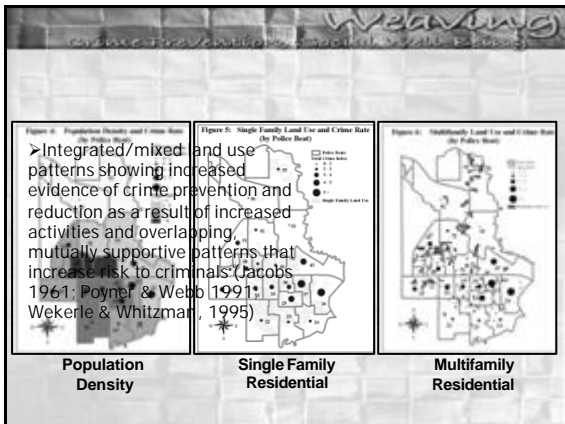


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**WEAVING**  
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> Allow/Promote In-Law Units in SF Neighborhoods  
 • See: [www.ci.santa-cruz.ca.us](http://www.ci.santa-cruz.ca.us)

> Prepare Amendments to General Plan and Zoning/Create Form-Based Code Allowing Mixed Use  
 • See: [www.ci.rocklin.ca.us](http://www.ci.rocklin.ca.us)

*(Includes a photograph of a house and a diagram of a building layout)*

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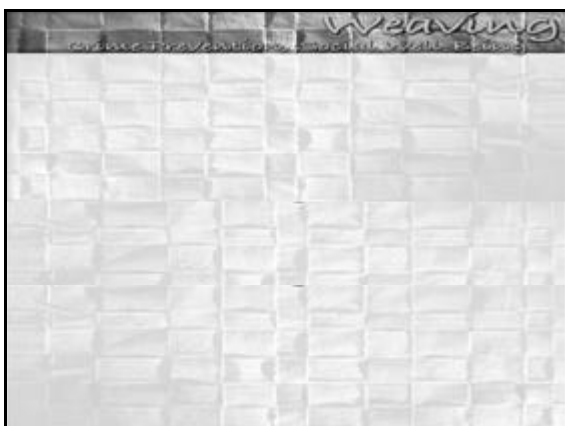
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## Weaving

- 2 billion+ hours stuck in traffic per year in U.S.
  - US Average: 73 minutes/day driving
  - 200% increase in workers commuting to another county
    - 2 hour RT commute/day = 20 days/year
    - 3 hour RT commute/day = 30 days/year
- Children: 65 minutes/day in cars




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## Weaving

- The poorest fifth of Americans spend 42% of their annual household budget on the purchase, operation, and maintenance of automobiles, more than twice as much as the national average.
- 1 in 6 American parents leave a child unattended at home for 30 minutes or more for 2 to 3 days per work week (1/2 of these leave their children alone every workday)
- Latchkey kids are at greater risk of truancy, receiving poor grades, and risk taking behavior.




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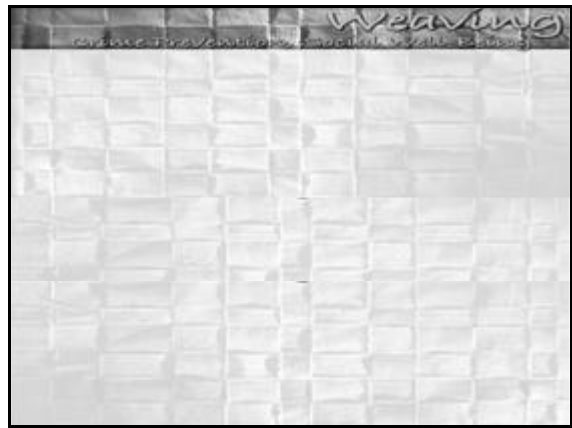
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## Weaving




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Weaving

- Physical design influences probability for sense of place and community (Talen 1999)
- Visual appearance of public and private spaces and places correlates with neighboring (Skjaeveland and Garling 1997)
- Collective efficacy – cohesion among residents – leads to lower rates of crime and disorder (Sampson and Raudenbuch 1999)

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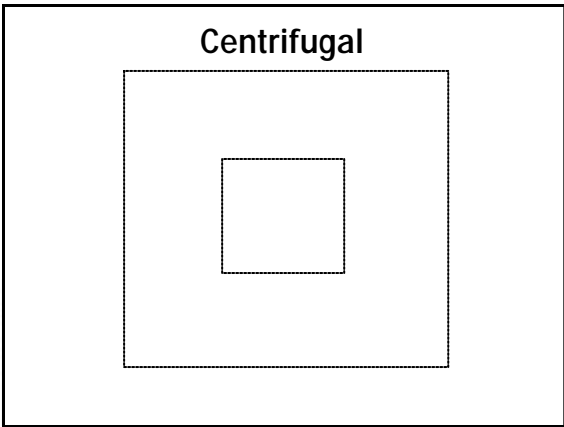
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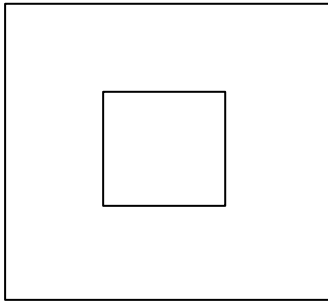
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# Centripetal



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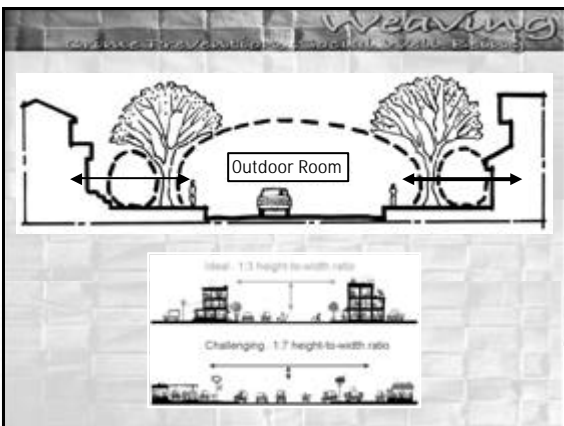
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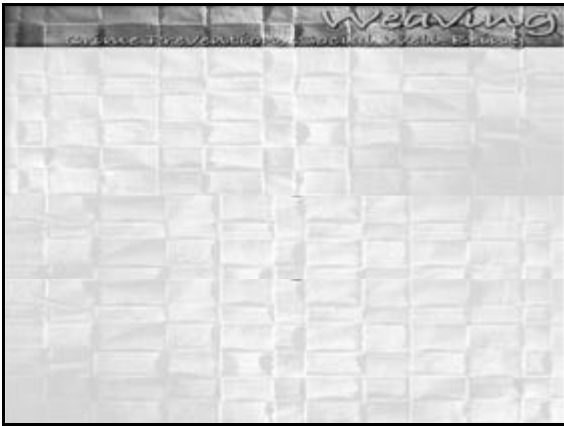
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**Weaving**

- One of the most effective ways of reducing the fear of crime is to raise community confidence and improve social capital.
- Involving and empowering local communities and strengthening the ties between friends and neighbors is fundamental in tackling the fear of crime.

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**Weaving**

- Social networks (who people know) have value
- Through social networks, people do things for one another
- This cooperation drives many community activities – including self-policing – & contributes to social cohesion

**Declining Social Capital: Trends over the last 25 years**

Attending Club Meetings	58%
Family dinners	33%
Having friends over	45%

**Surprising Facts**

- Joining one group cuts in half your odds of dying next year.
- Ten minutes of commuting reduces social capital by 10%.

Robert Putnam, 2000

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**Weaving**  
Community Controllers

➤ "Community Controllers" are an important component in building social cohesion and controlling crime:

- "intimate guardians" (i.e. parents, family members, etc.)
- "guardians" (i.e. store clerks, teachers, the police, etc.)
- "place managers" (i.e. landlords, apt. managers, etc.)



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**Weaving**  
The Strategic Purpose of the Redlands Police Department

➤ *To control crime before it occurs by supporting strong families, resilient youth and safe and sustainable neighborhoods*

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**Weaving**

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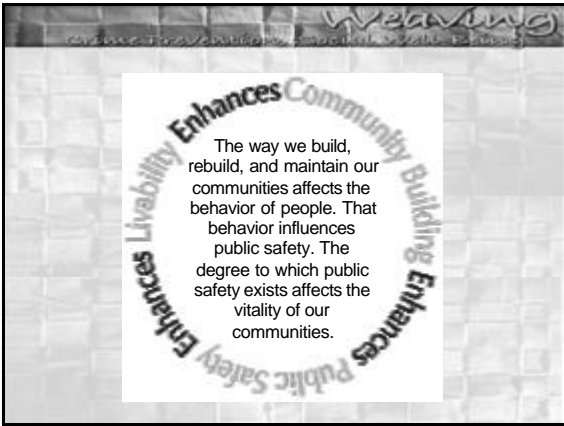
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