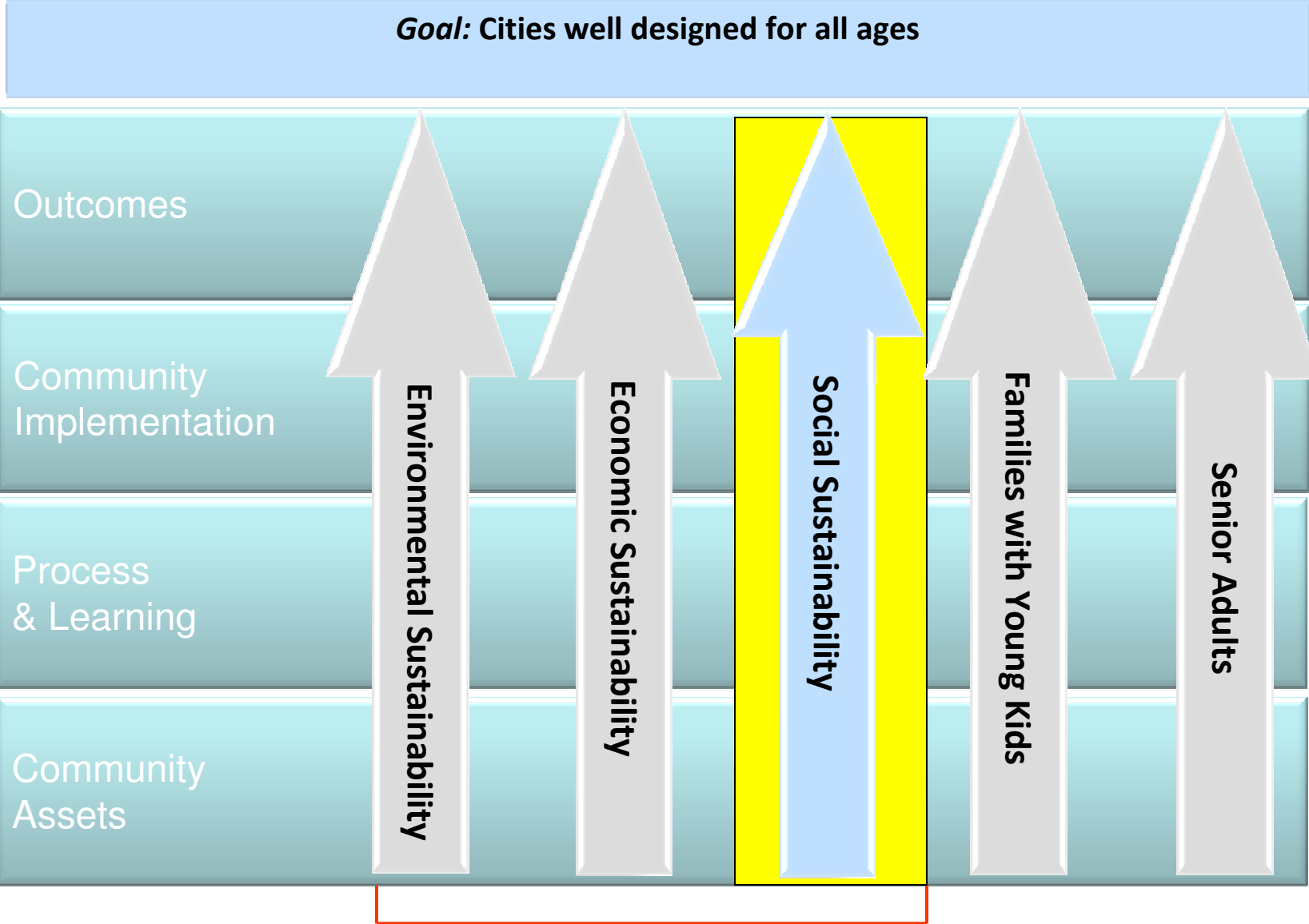


Affordable Communities: Emerging Housing Trends to Increase Social Sustainability



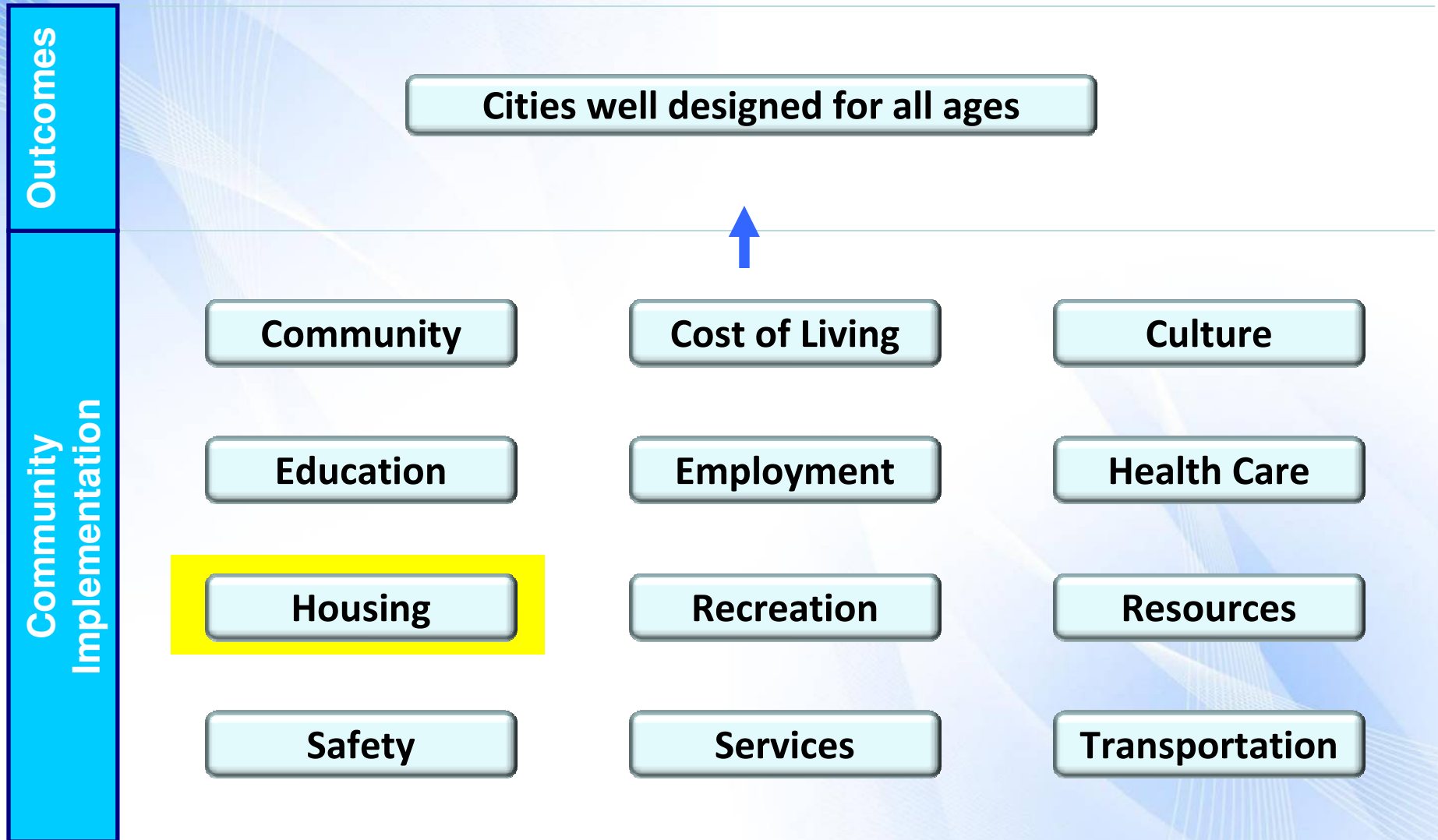
Jennifer Ranville, Founder of Human Life Project®, Architect + LEED AP
Scott Ranville, President of Human Life Project®

HLP Themes

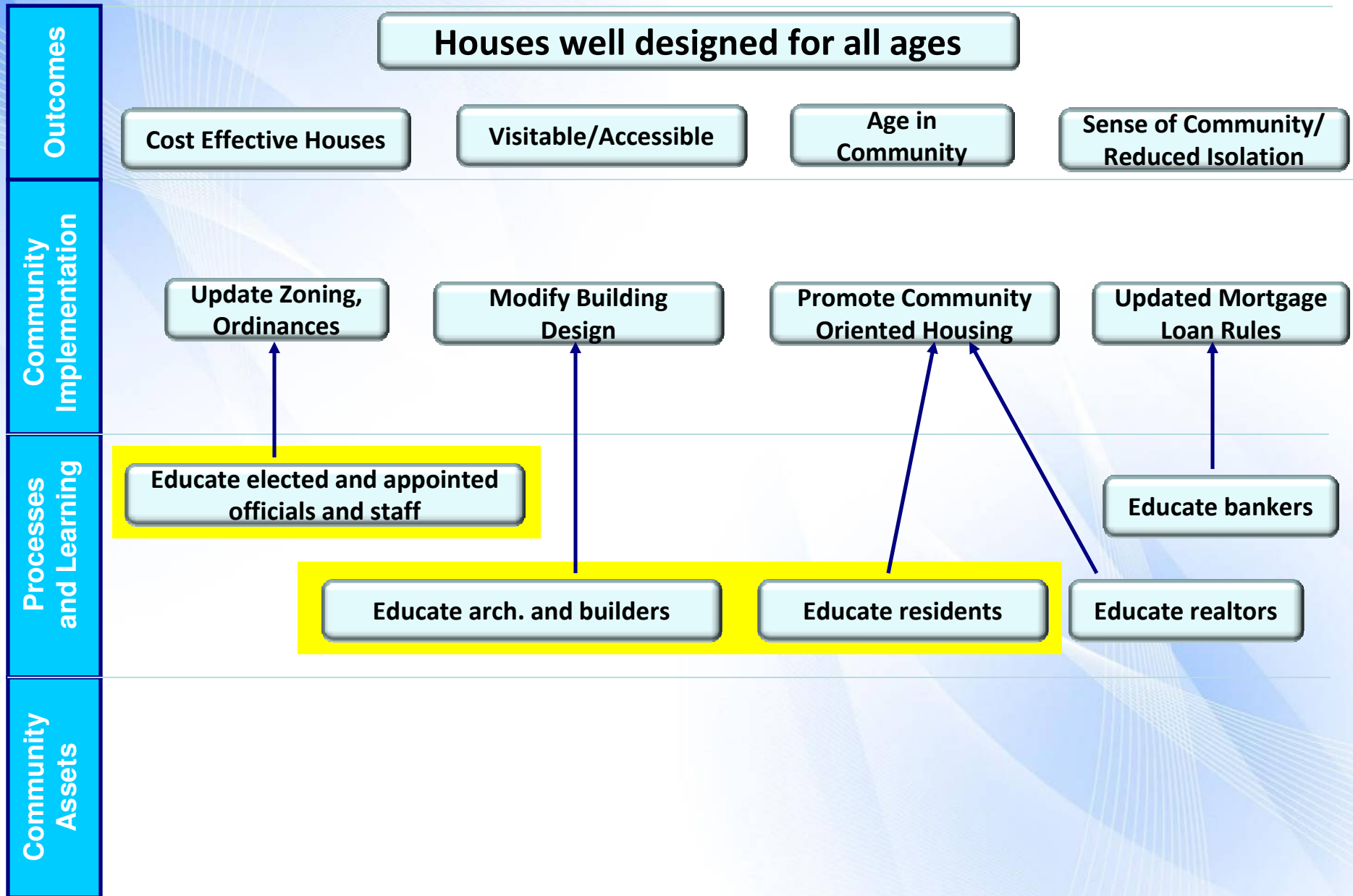


Triple Bottom Line

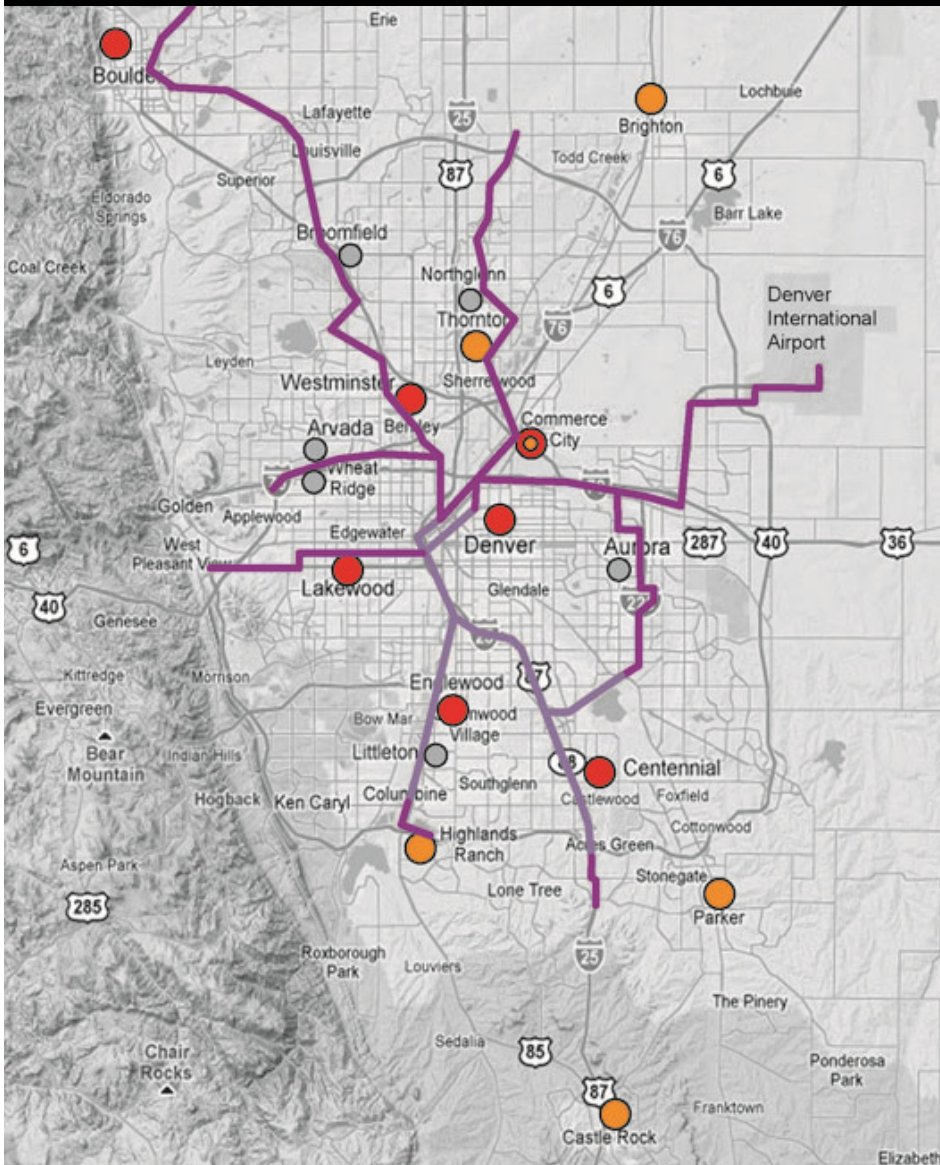
HLP Overall Strategy Map



Housing Strategy Map



Motivation for Housing Improvements



- 3 or More People Per Household %
- 50 % +
- Jobs Per Square Mile
- More than 3,000
- Public Transportation
- Existing Light Rail
- FasTracks Light Rail & Commuter Rail

Conclusion:

Families are being pushed further and further from jobs

Motivation for Housing Improvements

- DRCOG's Boomer Bond, Realtors, Home Buyers, AARP Articles , HLP Research, ...
 - Need for more cost effective housing
 - Need for cost effective family housing near jobs
 - Need for Visitable/Universal Design/ADA smaller housing for seniors
 - Benefits in Multigenerational Housing
 - Some suburbanites dislike “high density” (i.e. multi-story, multi-family housing common in TOD)
 - Need for housing that enhances community/social sustainability

Multi-Generational Planning

Motivation from American Planning Association

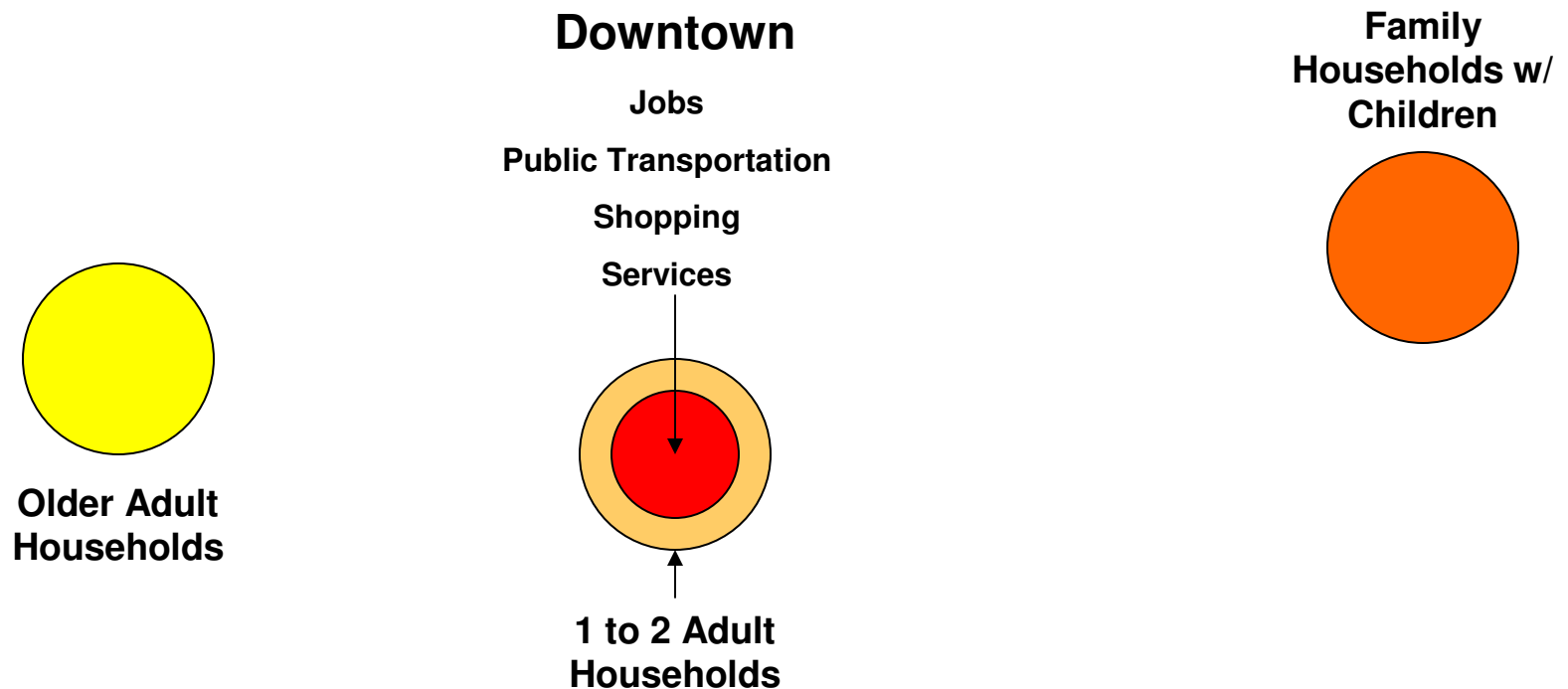
Multigenerational Planning: Using smart growth and universal design to link the needs of children and the aging population

- “By 2040, the proportion of people over the age of 65 will top 20 percent, and people under the age of 18 will make up almost 23 percent of the population. As result, **the oldest and youngest populations combined will make up almost half of all U.S. residents.**”
- “Older citizens, families with young children, and the young adult population **share many common needs, interests, and concerns**...safe, walkable neighborhoods, a complete range of services nearby, an opportunity for civic engagement, affordable and mixed use housing, and adequate transportation options.”
- “**Research by AARP has shown that most aging Americans do not want to live in communities separate from younger people.**”

<http://www.planning.org/research/family/briefingpapers/multigenerational.htm>

Housing Trends

Prevalent Housing Trends for Cities



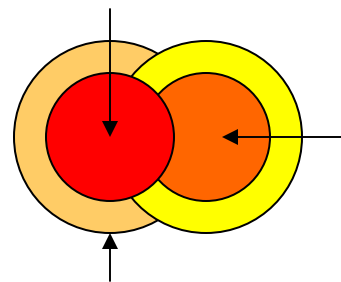
Why design separate housing if the youngest and oldest residents share many of the same needs?

Aging in Community Multigenerational Housing

Design for the Youngest to Oldest Resident

Downtown

Jobs
Public Transportation
Shopping
Services



Family
Households w/
Children and
Older Adults

1 to 2 Adult
Households

Housing Types



Multigenerational Houses

Accessory Dwelling Units (ADUs)

Group Homes

Pocket Neighborhoods

Cohousing



Multigenerational Houses

- Definition
 - One house with multiple related generations
- Advantages
 - Aging family member can be close
 - Recent college grad can have low cost housing
 - Allowed in all cities
 - Easy to get bank financing
- Disadvantages
 - No privacy

Accessory Dwelling Units (ADU)

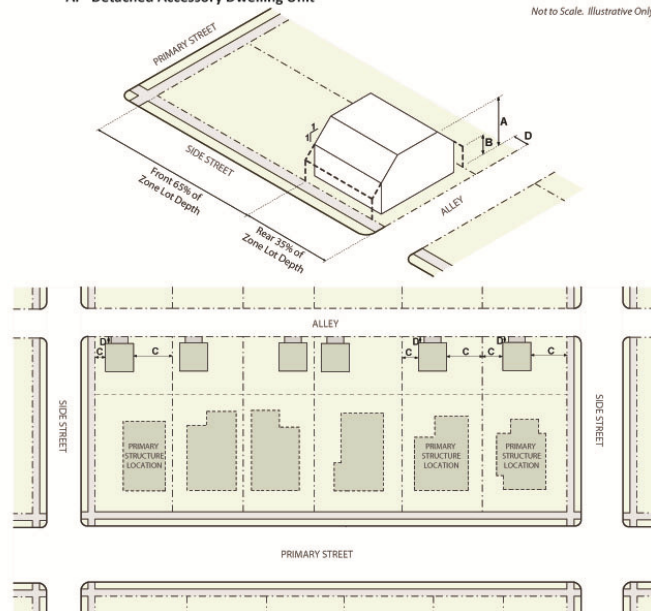
- Definition
 - Single family house with a detached second smaller house on a single lot
- Advantages
 - Aging family member can be close
 - Recent college grad can have low cost housing but privacy for grad and parents
 - Unit can be rented for additional income
- Disadvantages
 - Not permitted by many cities

Accessory Dwelling Units (ADU) Case Study – Denver Zoning Code

Article 5. Urban Neighborhood Context
Division 5.3 Design Standards

5.3.4.5 District Specific Standards

A. Detached Accessory Dwelling Unit



5.3-34 |

DENVER ZONING CODE
June 25, 2010

Amendment: 2, 4

Detached Accessory Dwelling Units

- Restricted to Specific Housing Types and Neighborhood Districts
- Allowed in Urban Neighborhood District
- Height in Stories - 1.5
- Located in Rear 35% of Lot
- Maximum Height - 24'
- Maximum Building Footprint - 650 s.f. to 1,000 s.f.

Small Single-Family House Case Study – Universal Design



<http://fabcab.com/>

- Zero Step Entry
- All Rooms ADA Accessible
- Interior Doors Slide Easy to Open
- Person in Wheel Chair Live Independently
- 550 s.f.
- Could Work as an ADU
- Prefabricated Home
- Cost \$150,000

Temporary ADU-like Case Study – Tiny House



<http://www.tumbleweedhouses.com/products/cypress-overview/#ad-image-0>

Tiny House on Wheels

- Official Classification: RV/Camper
- Potential Use: Temporary Increase in household size
 - Senior parent
 - College student returns home
 - Married child with kid(s) between jobs
 - Guest housing
- \$20-60,000 purchased
- < \$100 for the plans for DIY

Group Homes

- Definition
 - Large house with multiple unrelated people sharing common spaces (kitchen, dinning, and living room) with individual private bedrooms
- Advantages
 - Lower cost for any one person
 - Community
 - Blends into many single-family neighborhoods
 - Supports live in medical care
- Disadvantages
 - Not allowed in all municipalities

Group Homes

Case Study – Golden Elders, Littleton



Golden Elders Group Home

- Total Capacity 8 People
- Average Age ~70s
- Assisted Living with 24 Hour Care
- Private and Semi-Private Rooms
- Daily Social Activities
- Shared Prepared Meals
- Access to Transportation

<http://denvergrouphomes.org/assisted-living/littleton-co-group-homes.html>

Pocket Neighborhoods

- Definition
 - 6 to 12 houses clustered around common space with encouraged social interaction
- Advantages
 - Lower cost for any one unit is possible
 - Encourages community
 - Higher density (supports walkability, government/planners happy) but still feels like suburbs
- Disadvantages
 - Typically not permitted by standard zoning
 - Depending on how organized, bank financing can be harder

Pocket Neighborhoods Case Study – Ross Chapin Examples



Example from Ross Chapin Architecture
<http://pocket-neighborhoods.net>

Pocket Neighborhoods Case Study - Ross Chapin Examples



Example from Ross Chapin Architecture
<http://pocket-neighborhoods.net>

Pocket Neighborhoods

Case Study – Pettaway Pocket Neighborhood, Little Rock



http://switchboard.nrdc.org/blogs/kbenfield/an_affordable_housing_enclave.html

Pettaway Pocket Neighborhood

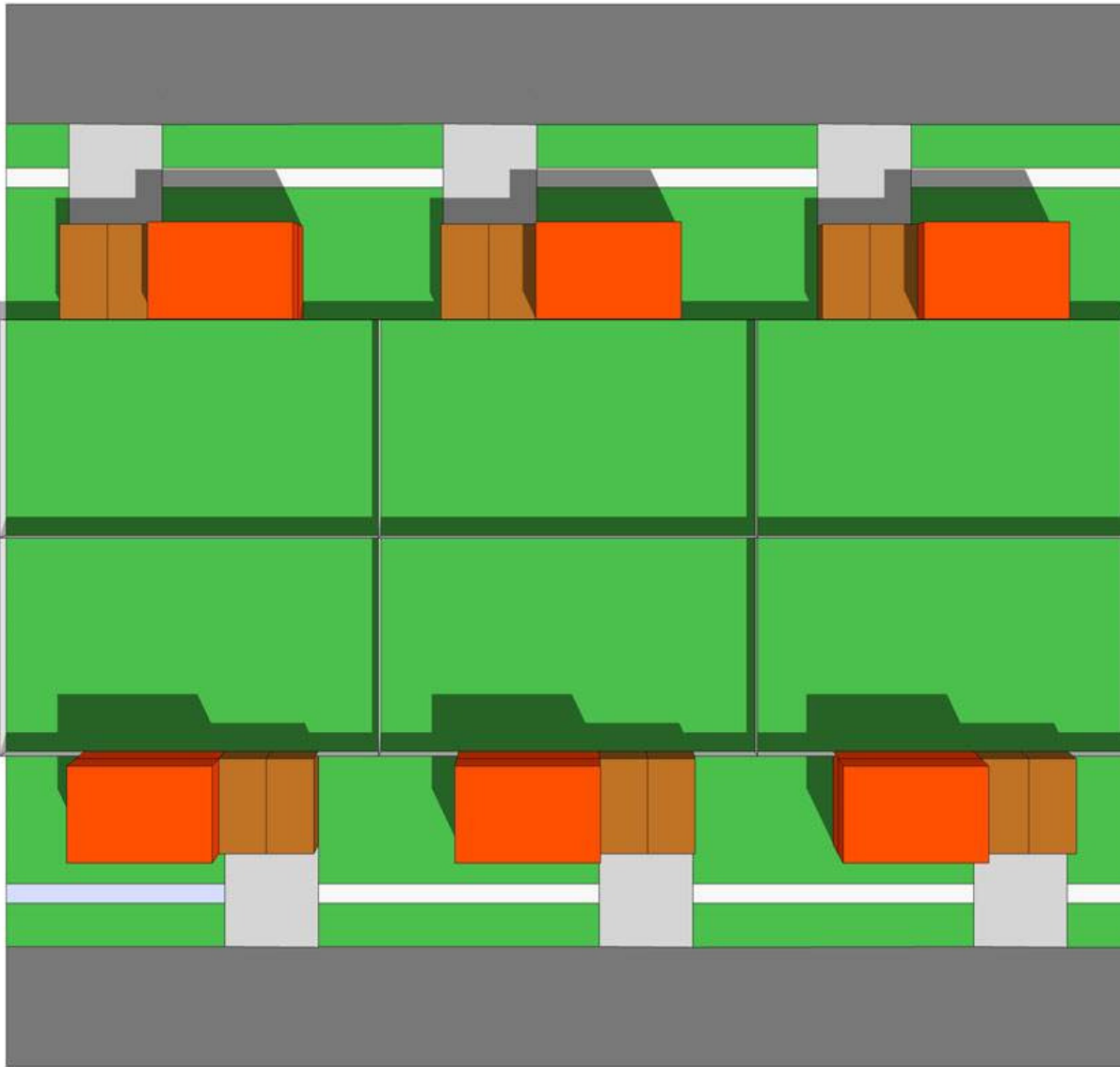
- Incremental Increase in Density
- Integrates into Single-Family Neighborhood
- Promote Stronger Sense of Community
- 1 acre site
- 9 Single-Family Houses ~ 1,200 S.F.
- Cost ~ \$100,000 per House
- Shared Green Space
- Sustainable Features

Almost Pocket Neighborhood Case Study – Stapleton Development, Denver



- 8-10 single-family houses clustered around a green space

Typical Single-Family Neighborhood



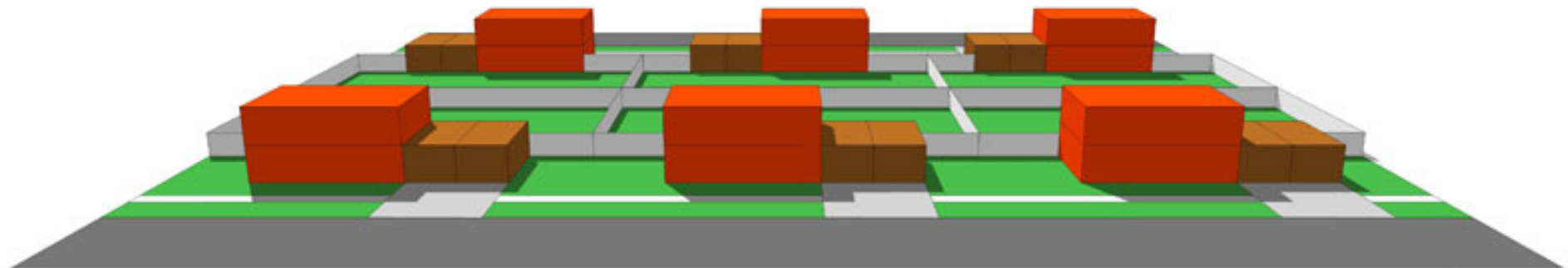
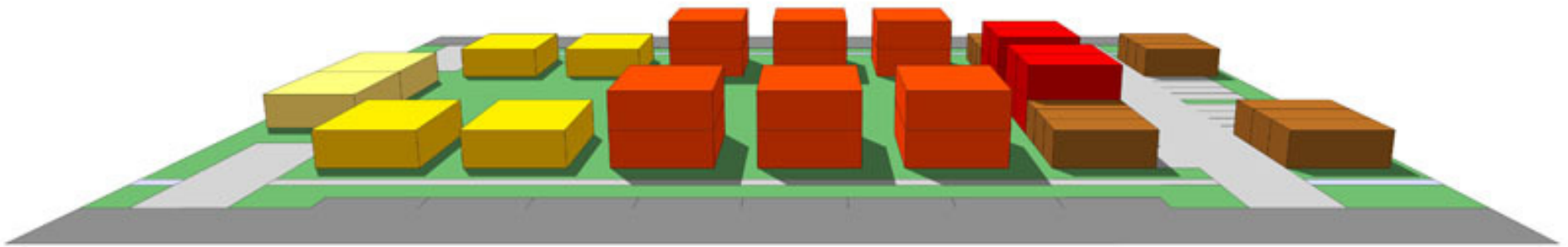
- 1.5 acres
- 6 family sized single-family residences
 - 4 people/house
- Minimal interaction with adjacent neighbor
 - Exponentially less interaction with neighbors further away

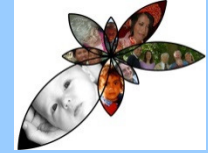
HLP Pocket Neighborhood Concept



- 1.5 acres
- 6 family sized units
 - 4 people/unit
- 4 patio homes
 - 1-3 (2 adults, 1 child)/unit
- 1 group house
 - 4-5 adults + (optional) caregiver
- 2 single-family looking units with 4 (each) micro units
 - 1-2 adults/unit
- HLP Features
 - All ground level units visitable
 - Univ. Design for patio homes

Diagrams of Pocket Neighborhood and Typical Single-Family Neighborhood





Denver Metro City Design Competition

- **What:** Architectural Design Competition
- **Who:** Students Grade 12 and Under
- **When:** February 22, 2014
- **Where:** Arapahoe Community College in Littleton
- **Theme:** Pocket Neighborhoods
- **Cost:** Free
- **Prizes:** College \$, iPad, job shadow architect, software, etc.

<http://humanlifeproject.com/DesignCompetition.htm>

Act-3D



RNL

Ross Chapin Architects

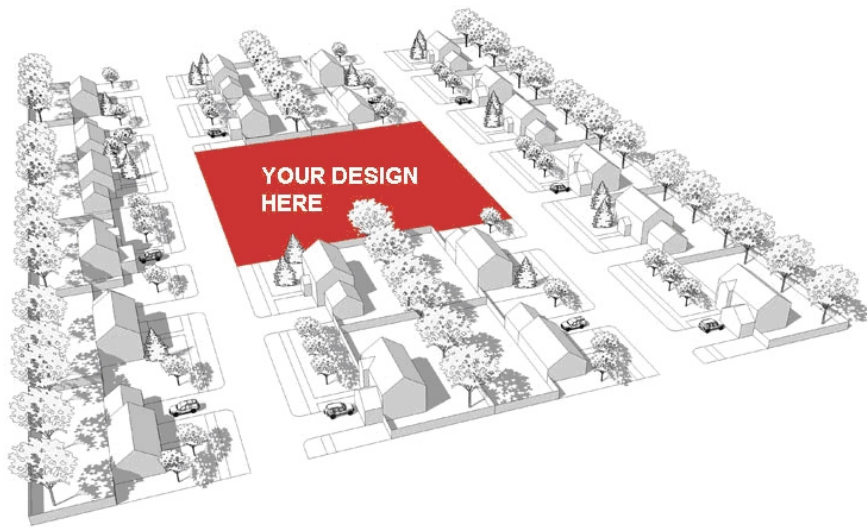


Alamo Draft House

Janice Blanchard



Design Competition Details



Denver Metro City Design Competition

- Scholarship and Fun Category
 - Prizes
- Program Summary
 - 1 acre site
 - Minimum of two senior houses
 - Minimum of two family houses
 - Minimum of six houses total
 - Minimum of 2 sustainable features

**** Let us know if you would like to review the final report or have a live presentation
Or if you know of students that may be interested**

Cohousing

- Definition
 - Multi-family with a typical size of 25-35 households with required participation in meals, social events, and maintain housing/grounds
- Advantages
 - Encourages community (mandatory social interaction)
 - Higher density (supports walkability, government/planners happy)
 - Reasonable cost to buy into existing cohousing development
- Disadvantages
 - Can be expensive to start a new development
 - Mandatory social interaction
 - Very hard for individuals to get bank financing (new project)
 - Typically not permitted by standard zoning

Cohousing

Case Study – Harmony Village, Golden



Harmony Village Cohousing Community

- 27 Households (48 Adults & 18 children)
Ages: 1 to 90 Years
- 5.5 Acre Site w/2.5 Acres Open Space
- Dwelling Units 800 to 3,000 s.f.
- Active Participation Required
- Ecologically Reasonable Community
- Energy-Efficient Buildings
- Pedestrian-Friendly
- Social Common Spaces

Cohousing Case Study – Harmony Village, Golden



Cohousing

Case Study – Wild Sage, Boulder



Photos Wild Sage

lifeproject.com

Wild Sage Cohousing Community

- Singles, Families, Couples, Empty-nesters, & Seniors
- Mixed-Income Condominium
- Common House 3,500 s.f.
 - Kitchen, Dining, Patio w/Grill
 - Children's and Family Room
 - Exercise Room
 - Guest Rooms
- Pedestrian and Child-Friendly
- Ecologically Responsible Community
- Walking Distance to Shopping, Park and Trails, Community Garden, & Bus Stops

How Easy/Hard to Implement

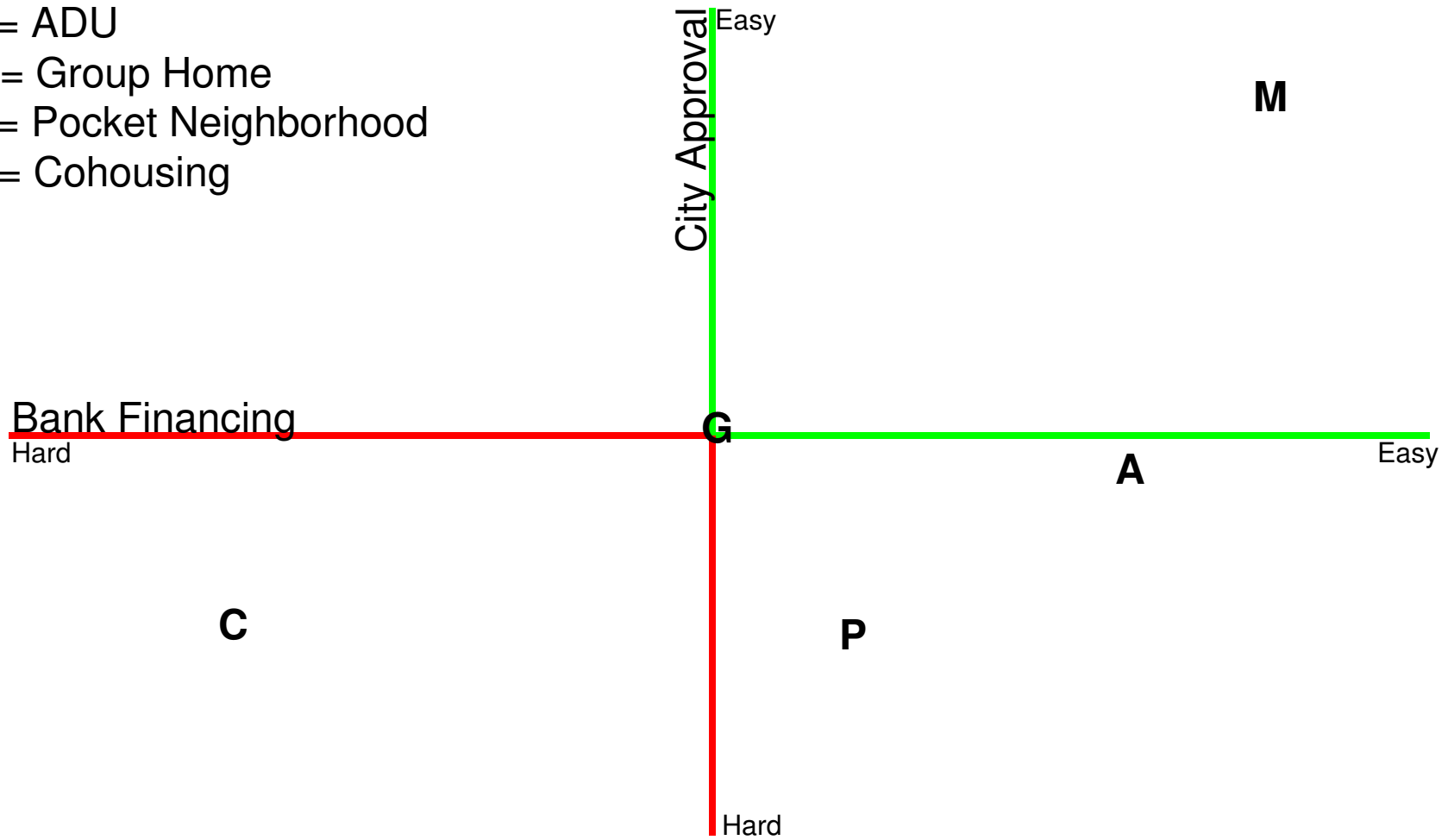
M = Multigenerational

A = ADU

G = Group Home

P = Pocket Neighborhood

C = Cohousing

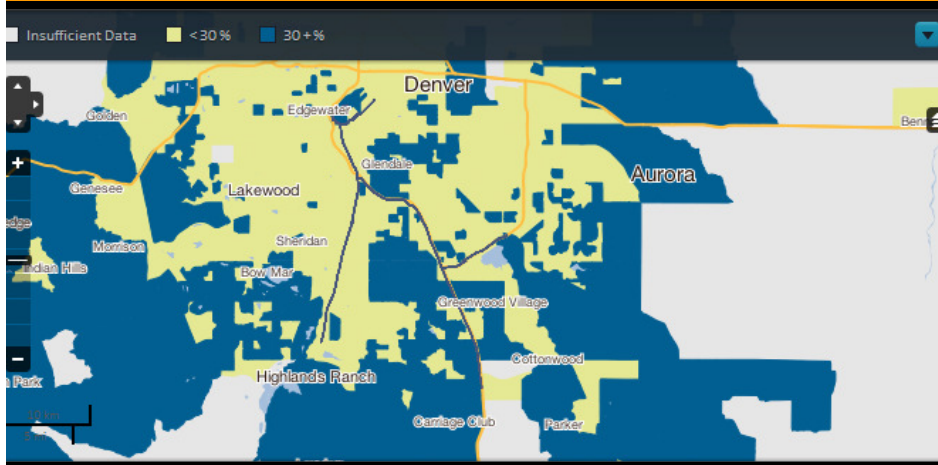


Moving Beyond Affordable Housing Affordable Living

Affordable living addresses core needs: housing, utilities, food, transportation, health/fitness, and social activities

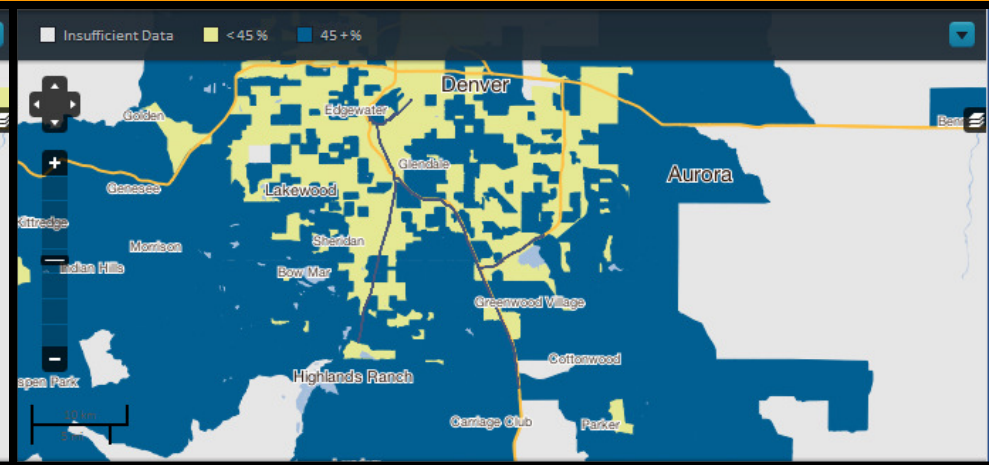
- Mixed-Income Housing that Maximizes Living Space = Saving Housing Costs
- Eco-Friendly Building = Saving Utility Costs
- Garden and Edible Landscaping = Saving Food and Health Care Costs
- Walking, Bicycling, Car Sharing, Public Transit = Saving Transportation Costs
- Recycle and Compost = Reduced Waste
- Core Daily Destinations Centrally Located = Reduced Travel Distances/Expenses
- Account for Life-Cycle Costs = Long-term Savings
- Parks and Fitness Opportunities = Saving Health Care Costs
- Build Relationships/Help Neighbors = Savings that Continues to Give Over Time

Moving Beyond Affordable Housing Affordable Living



Housing Only

Yellow = Affordable < 30% Income for Housing



Housing + Transportation

Yellow = Affordable < 45% Income for Housing + Transportation

<http://htaindex.cnt.org/map/>

Affordable Living

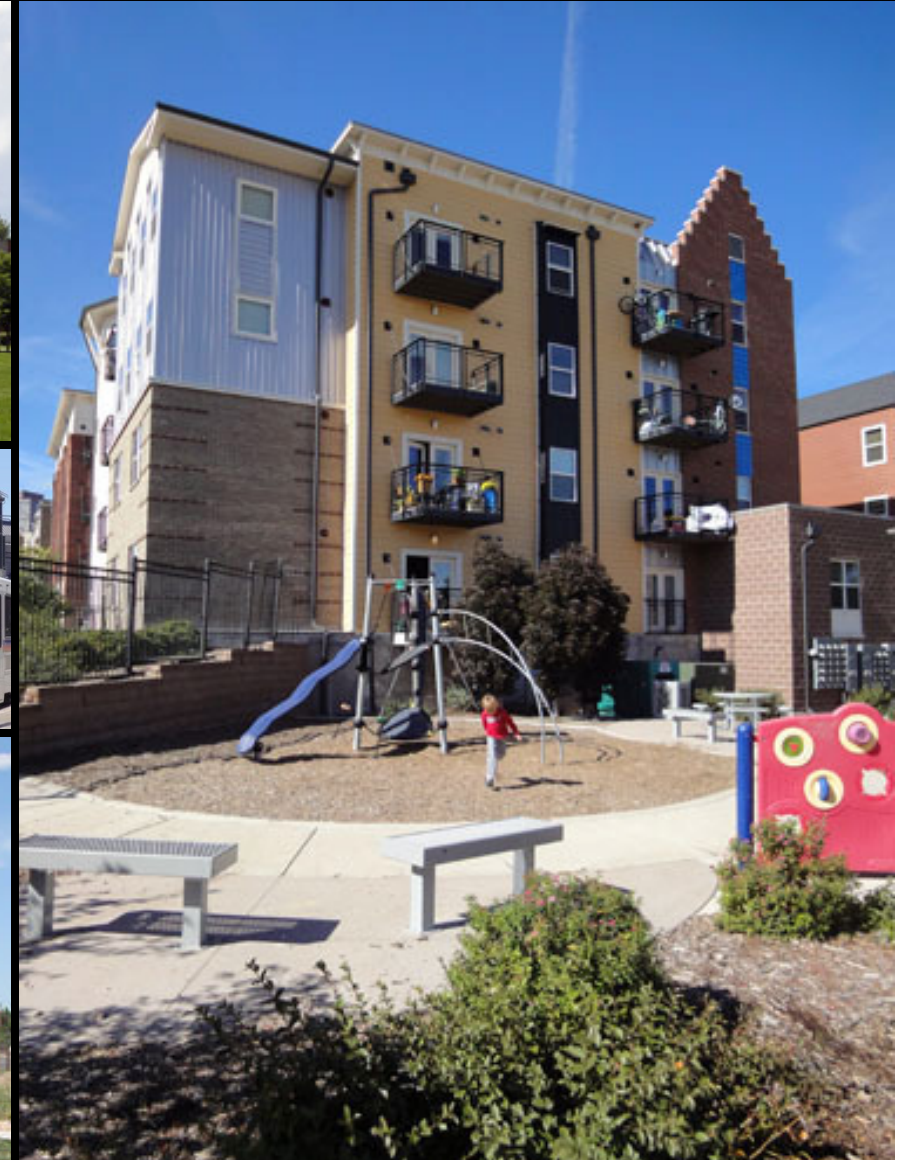
Case Study - Benedict Park Place, Denver



Benedict Park Place

- Downtown Denver
- Mixed-Income Housing with 585 Units
- Rental Units: Studio, 1,2, & 3 Bedrooms
- All Ages + Senior Housing Tower
- Retail: 15,000 S.F.
- Land Area: 14.9 Acres
- Park and School Across Street
- Urban Garden & Playground
- Fitness Center & Patio/Grill
- Walk to Bus and Light Rail Stop
- LEED for Homes Pilot Platinum and LEED ND Pilot Gold

Affordable Living Case Study - Benedict Park Place, Denver



Accessibility and Universal Design

- 1.ADA (Americans with Disabilities Act) Handicap Accessibility** – Design for people in a wheelchair for daily living with ability to access all rooms
- 2.Visitability** – Design for people in a wheelchair to visit with ability to enter the house and access a bathroom on first floor
- 3.Universal Design** – Design for people of all ages and abilities offering the most flexibility to design for changing needs



Universal Design

- 1. Covered Zero-Step Entry**
- 2. All Basic Living Spaces Main Floor or Elevator**
- 3. Kitchen and Bathroom Special Attention to Design**
4. Flexibility for Storage Heights
5. Everything User-Friendly and Easy to Reach
6. Good Lighting Inside and Outside

Family Specific Design

- 1. 3+ Bedrooms and 2+ Baths**
- 2. Sound Transmission Between Multi-Family Units**
- 3. Spacious Living Areas**
4. Usable Storage Space
5. Indoor Running Circle for Children
6. Visual and Vocal Connection to Outdoor Play Areas

Human Life Project®

Creating Enlivened, Strong, Sustainable Communities for All Ages



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