Cozy by Design
Communities for the 21st Century
Coziness and Cultural Adaptation

- Rome: 5,150/sq mi
- London: 11,000/sq mi
- Paris: 64,000/sq mi
- Phoenix: 2,700/ sq mi
- Athens: 26,500/ sq mi
- Kowloon: 154,000/sq mi
How to change the Arizona culture to accept more Cozy Communities

1. **Participatory Design**: involve neighbors and potential buyers/renters in earliest stages

2. **Collaborative Design**: involve planning staffs as participants or observers

3. **Fitting the Context**: match street patterns, building scale, rhythms, massing, proportions, ‘character’ of existing neighborhoods

4. **Personalization**: Provide opportunities for residents to make changes, additions, self-expression, similar to lower density conditions
Community Participation in Planning and Design

Neighbors can be organized by the developers and their architects into work teams using modeling kits to explore site plan options, home designs and stylistic preferences. In the process, neighbors become educated about how to design for slightly higher densities without losing the character of their neighborhood.
Design work sessions with neighbors

Resulting densities acceptable to neighbors have sometimes been as much as two and three times the existing neighborhood after the neighbors have a chance to study their options with modeling kits.
Smaller Streets use less land, allowing more land for more homes, open space, water retention.

Seattle: 25’ curb-to-curb, new two-way streets with parallel parking on both sides. If drivers in Seattle can do it, why can’t others?

Manhattan Beach, CA: 20’ R.O.W. 16’ Alley for back-loaded parking
Scottsdale Infill Redevelopment.
Scottsdale Infill Redevelopment.
Scottsdale Infill Redevelopment: Upper Levels
Scottsdale Infill Redevelopment.
Smaller Lots: with careful design, homes can be on smaller lots without feeling crowded. One-story elements (garages) can separate the two-story elements so homes are further apart. Shaded decks off the second floor parents’ bedrooms and above the front porches provide additional architectural interest and life to the street.
Andalusia, Spain
Bienestar Estates

Program

- Number of Homes: 252 Homes
- Total Acreage: 51 Acres
- Density: 5 Homes / Acre
- Average Lot Size: 5,000 s.f. (50’x100’)
- Sideyard Setback: 7’
- Local Roadway Widths: 50’-60’

For 252 Residents
51 acres

Infrastructure (Roadways)

28.9 ac

19.2 ac

2.9 ac

Shared Open Space

Per Resident Infrastructure Cost

$13,600 / Resident

Site Plan
Example #1
Program

- Number of Homes: 46 Homes
- Total Acreage: 8 Acres
- Density: 5-6 Homes/Acre
- Average Lot Size:
  - (40’x100’)
  - (50’x75’)
- Sideyard Setback: 6’
- Local Roadway Width: 50’

For 252 Residents
51 acres

- Infrastructure (Roadways): 13.6 ac (29% of total)
- Shared Open Space: 5.9 ac
- New Shared Open Space: 8.3 ac

Per Resident Infrastructure Cost:
$9,660/Resident

Site Plan
Example #2
Program

- Number of Homes: 65 Homes
- Total Acreage: 8 Acres
- Density: 8-9 Homes / Acre
- Average Lot Size: 2,400 s.f.
- Sideyard Setback: 5’
- Local Road Widths: 20’-30’

For 252 Residents
51 acres

Infrastructure Cost

- Infrastructure (Roadways): $6,819/ac
- New Shared Open Space: 23 acres
- Shared Open Space: 4.4 acres
- 14 acres

Per Resident Infrastructure Cost
$6,819/Resident
Example #3

Program

- Number of Homes: 91 Homes
- Total Acreage: 9 Acres
- Density: 10 Homes / Acre
- Average Lot Size: 2,100 s.f.
- Sideyard Setback: 0’
- Local Roadway Width: 20’

For 252 Residents
51 acres

- Infrastructure (Roadways): 12.3 ac, 68% dec.
- Shared Open Space: 5.8 ac
- New Shared Open Space: 26.7 ac, 1121% inc. in Total Open Space

Per Resident Infrastructure Cost

$4,404 / Resident
Affordable, Sustainable and Expandable Home for three generations

Urban Infill Lots: 50X100

• aerated concrete block made with fly ash: 8", R-30
  • SIPS roof panels: 8", R-35
  • roof beams: small diameter rounds, harvested to prevent forest fires
    • Passive solar and PV’s- 90% of all energy needs
    • Rainwater harvesting for irrigation
      • reuse grey water for irrigation
    • water-based air conditioning system, 60% energy reduction
      • Reflective roof reduces heat island effect

Guadalupe, Arizona
7/acre
Guadalupe
9.5/acre

Lots = 36’
South Phoenix
conversion of 50+’ lots
to 36’ lots
Two-story attached, but separated by one-story garages

Six homes are grouped with front doors and living rooms facing auto-free courtyards where toddlers play, while back doors and patios face auto-courts where older children on wheeled toys can play.

12/acre
Auto-free courts (top) create well-supervised play spaces for younger children with only six homes per court. Small, dead-end auto courts (lower left) at the rear of the homes create safe play areas for older children. One-story garages separate the two-story homes for more privacy and varied street views (lower right).

Courtyard Clusters: 12/acre
3 in 1: A Big ‘House’

Three smaller town homes (900-1400 sf) are grouped together to look like one larger home that fits into a neighborhood of single-family homes.

15/acre
Apartment Building as a ‘Bed and Breakfast Inn’

With careful massing and porch design, a 12-unit apartment building can look like a charming ‘bed and breakfast inn’, fitting into an older single family neighborhood.

20/acre
Disguising Density: Lower massing in the front on the street, higher massing in the rear along the interior auto courts.

Street edge

Auto courts

25/acre
Expandable, Live-Work, In-Laws
Double-height front rooms can be used as living rooms or businesses. Front patio walls provide privacy and sound protection, but large windows in the patio walls allow them to be used as show windows for businesses.
Front Business / Rear Residential

Behind the storefronts, families use the auto-court for social gatherings and play areas.
Auto + Pedestrian Courts

35/acre
1 auto/unit
Pedestrian Court
Hillside Townhomes
40/acre
Mid-Level Central Court
Senior Housing as ‘Grand Hotel’

40/acre
(one-bedrooms)
An Apartment Building as a ‘Lodge’

Seniors

Formerly Homeless Women and Children

Puyallup, WA

40/acre
By placing the parking garage 7’ into the ground, the lid is 3’ above ground, similar in height to porches in this neighborhood. This rental housing for 50 lower income families then fits the context of high-priced single family homes where the median sales price is $1.5 million.
Mixed-Use, Transit-Related

Singles live in apartment buildings lining a busy boulevard, three blocks from a transit stop with retail, childcare and community facilities on the ground floor.

Families live in their own town homes grouped around courtyards behind the apartment buildings.

Mixed-Use, Transit-Related 55/acre
92 Downtown Lofts/Apartments

135/acre  (TYPE V, Wood Frame)

By sinking the garage (one auto per unit) half into the ground below the housing, half-level stoops and porches can line the street edges. This provides life for the street and security to the first level lofts.

The 28’-wide, 50’-tall court provides ample space, light and shade for the residents.
51 Rental Apartments (36 townhomes, 15 flats on 1/3 acre)

150 Units/Acre