Project Credits

Disclaimer: The information in this report is intended as guidance for the City of Sedona in informing decisions related to this project. The research, design process, and recommendations were achieved to the best knowledge and judgment of the Drachman Institute staff, students, and employees, and is subject to verification by the City of Sedona or other parties prior to implementation of any action.

Drachman Institute

The Drachman Institute is the research and public service unit of the College of Architecture and Landscape Architecture at The University of Arizona dedicated to the environmentally sensitive and resource-conscious development of neighborhoods and communities.

The Drachman Institute focuses its research and outreach activities on the proposition that housing is the building block of neighborhoods and neighborhoods are the building blocks of communities.

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June 2009
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Introduction
Introduction

Project Background

The City of Sedona is engaged in ongoing discussions with residents about a range of strategies that could create some affordable housing in the community. One recurring question is “what would it look like?” Sedona’s small town character and design conventions make it difficult to use examples of well-designed affordable housing from other cities to answer that question. The most recent community discussions concerned a proposal to increase maximum density in the City from 12 units per acre to 20 units per acre along the commercial corridor, specifically for developments that include affordable housing. That proposal was withdrawn for lack of support, in some measure because it could not be shown what that housing could look like using Sedona’s design guidelines.

The City of Sedona requested that the Drachman Institute – through a technical assistance grant from the Arizona Department of Housing (ADOH) – prepare a series of drawings and models that show how affordable housing could fit into the context of the community at a variety of densities and configurations.

The Drachman Institute worked closely with City of Sedona planning staff and others to develop a series of affordable, sustainable, and site-appropriate housing prototypes. Peter McBride and Corky Poster with the Drachman Institute led five 4th-year professional architecture students in an intensive four-week design studio project at The University of Arizona School of Architecture (ARC 402 class). Drachman Institute staff and Architecture students made a series of site visits and met with City of Sedona staff to understand the context, codes, regulations, and the community’s concerns. Through the class, students developed hypothetical affordable housing designs for three sizes of sites demonstrating different configurations and densities, and presented their drawings and models at a public community meeting in Sedona. Based on feedback from the public and City of Sedona staff, additional designs and updated designs were developed by Drachman Institute staff and presented to the City of Sedona Planning and Zoning Commission.

This document presents the designs developed through that process and provides the City of Sedona with some answers to how affordable housing can fit into the physical and social context of Sedona.

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Project Timeline of Events

**Fall 2008** - City of Sedona approached Arizona Department of Housing (ADOH) for technical assistance

**December 2008** - ADOH contacted The Drachman Institute and a Scope of Work for “ADOH City of Sedona Affordable Housing Prototypes” was developed

**03 February 2009** - Planning kick-off meeting held between the Drachman Institute and City of Sedona staff

**23 February 2009** - Review of potential site(s), zoning, and code, and design guidelines

**06 March 2009** - ARC 402 Student Designs discussed with City of Sedona staff

**12 March 2009** - First Sedona Public Community Meeting Presentation - presentation and discussion of project and student designs

**May 2009** - Revisions of designs and design development

**02 June 2009** - Final presentation to the City of Sedona Planning and Zoning Commission at City Hall in Sedona

**June 2009** - Production and completion of City of Sedona Affordable Housing Prototypes document
Introduction
Scope of Work

Scope of Work Overview (Developed December 2008)

Inventory and Analysis of Demographics, Maps, Design Guidelines
- The Drachman Institute will collect and analyze demographic information, physical and zoning maps, and Sedona's design guidelines.

Project Scope Meeting & Sedona Site Visit
- Drachman Institute staff will meet with City of Sedona staff to formulate scope of work and identify densities, potential sites, and types of affordable housing prototypes.
- Drachman Institute staff will become familiar with the Sedona area and obtain site/context photos and maps.

Potential Site(s), Zoning, and Code Analysis
- Drachman Institute will perform a preliminary site analysis of the selected parcels. Items may include the location of any physical features (vegetation, existing buildings, etc.), access points for future residents, topography, site context, allowable coverage, height, and density.
- Drachman Institute will analyze existing Zoning, Building, and Land Use codes and ordinances.

Concept Design
- Drachman Institute will develop a series of conceptual designs for three housing types.

Sedona Team and Community Meeting + Presentation One
- Presentation of conceptual designs to City of Sedona staff and the Sedona community for review.

Schematic Design
- Drachman Institute will develop Schematic Designs for three housing types based on the conceptual designs and feedback from the City of Sedona.
- Schematic designs are not intended to be construction documents; schematic designs serve the purpose of communicating to the draftsman and/or architect who will be doing construction documents the full intentions of the project. Schematic designs will include overall site features, circulation, housing plans, material pallets, and intentions for construction.

Sedona Team and Community Meeting + Final Presentation
- Final presentation of schematic designs of three affordable housing types to the City of Sedona staff and the public community.

Deliverables:
- Drachman Institute will deliver a series of final schematic presentation-quality printed drawings and models along with digital copies of presentations as generated through this study.
Sedona is a community with unique assets, opportunities and challenges. New development should respect and enhance Sedona’s cultural, historic and environmental uniqueness, rather than detract from it.

In contrast to many growth patterns in the southwest, the City of Sedona has managed to maintain the natural integrity and beauty of its landscape through a series of distinct building codes and guidelines. The following sections from the City of Sedona Design Review Manual (2002) illustrate some of the standards that were of particular importance in the design of the prototypes. They demonstrate the unique ways in which Sedona has maintained a distinct character.

**Section 2.2.3: Viewshed Analysis**
Where feasible, preserve existing views
1. Views from within the site
2. Views into the site

**Section 2.4.3: Corner Sites**
1. Corner sites should be developed with parking in the rear.
Section 2.4.4: View Considerations
1. Align open spaces with view corridors

Section 2.4.6 Climate Considerations
1. 4-season climate requires consideration of sun and wind in design.
2. Covered parking provides relief from the elements.

Section 3.3.2 Horizontal Composition
1. Large or long continuous wall surfaces should be avoided (>50’ in width).
2. Vary roofline silhouettes.
Section 3.3.3 Smaller Scale Components
1. The upper level of a building should have a reduced floor area and building mass.
2. Reduce the perceived height by dividing the building mass into smaller elements.

Section 4.2.3 Boundaries & Transitions
1. Use landscape buffers between dissimilar land uses.
2. These buffers should include a variety of low-maintenance species in an informal, clustered design.

Section 4.5 Other landscape elements & features
1. Walkways & patios should be included early in design; free form preferred over straight lines.
City of Sedona Land Development Code
Article 9 Development Standards: 909 Trees

Existing trees on a lot or parcel shall be preserved, with the following exceptions. No existing trees on any lot or parcel shall be removed except in accordance with the following criteria:

1. The tree is located in an area where structures or improvements will be placed and non removal would unreasonably restrict the economically beneficial use of the lot or parcel. To the extent possible, development shall be located so as to avoid mass removal or clearing of trees. In addition, building placements shall take advantage of tree stands as natural visual screens between development areas, and as noise and wind buffers.

2. The tree is dead, diseased, injured, in danger of falling upon existing or proposed structures, abuts or overhangs a building so as to create a potential fire hazard, interferes with the growth of other trees or existing utilities, creates unsafe vision clearance or conflicts with other ordinances or regulations.

City of Sedona - Preferred Vegetation

- Pinyon pine (*Pinus monophylla*)
- Arizona cypress (*Cupressus arizonica*)
- Sycamore (*Platanus wrightii*)
- Yucca (*Yucca sp.*), Agave (*Agave sp.*) and Beargrass (*Nolina sp.*)
- Manzanita (*Arctostaphylos pungens*) and mountain mahogany (*Cercocarpus sp*)
- Live oak (*Quercus virginiana*)
- Cactus (*Opuntia*)
- Wildflowers (*Penstemon sp.*, etc.)
- Native Utah juniper (*Juniperus osteosperma*) or Keteleeri juniper (*Juniperus chinensis Keteleeri*)
The concept of sustainability has become a driving force in nearly all realms of society. By definition, it allows us to endure – to meet our current needs, but to also maintain the ability of future generations to enjoy the same benefit. There are generally three components to sustainability: social, economic, and environmental, each dependent on the existence of the other two.

Sustainable design is not a luxury when it comes to affordable housing. Rather it is a necessity for preserving affordability, providing quality, durable homes for residents, and creating a lasting community. Listed below are just some of the various sustainable practices identified as being applicable to the prototypes designed for this project.

### Environmental
- Integrated photovoltaic panel systems: provides clean energy production and can reduce energy consumption
- Water harvesting elements: impermeable surfaces such as paved areas and roofs direct runoff to landscape areas and water collection cisterns
- Natural shading: reduces heat-island effects and increases energy efficiency
- Native plants and landscape materials: reduces the need for active irrigation systems and provides appropriate natural habitats

### Economic
- Appropriate passive solar orientation: optimizes solar gain in the winter and shade in the summer, reducing energy consumption
- Strategically located operable windows and openings: provides natural ventilation, reducing energy consumption
- Energy efficient materials, fixtures, and systems: saves on utility costs over time

### Social
- Affordable housing: allows for people with a range of incomes to remain in and contribute to their community
- Housing located near public amenities: reduces transportation strain/costs and promotes pedestrian-friendly neighborhoods
- Highly-visible sustainable design methods: educates the community on the benefits of sustainable practices
Sustainability Resources

- **WHEN PLANNING CONSTRUCTION PROJECTS**, consider the tax implications, rebate offers and soft benefits associated with environmentally friendly construction. Construction companies may not be eligible for these on buildings they construe for others, but building owners and any subcontractors used on the projects are.

- **IT’S MOST COST-EFFECTIVE TO CONSIDER** green elements before beginning construction, but some elements such as solar panels can be added to existing buildings.

- **FIRMS AND COMPANIES CAN BE** environmentally friendly and also save or earn money in seven ways: Tax rebates, LEED incentives, recycling the core and shell of existing buildings; using energy-efficient devices; maximizing natural energy sources; building on HAZMAT and Superfund sites; and calculating the intangible benefits of green construction.

- **WHILE CPAS MAY FIND IT DIFFICULT** to quantify the soft benefits, studies show that environmentally friendly buildings raise employee retention and productivity rates, improve the retail customer experience and generate higher average revenues, and bring apartment building owners higher-wealth clients willing to pay more in rent.

LEED [Leadership in Energy & Environmental Design] is an internationally recognized green building certification system, providing third-party verification that a building or community was designed and built using strategies aimed at improving performance across all the metrics that matter most: energy savings, water efficiency, CO2 emissions reduction, improved indoor environmental quality, and stewardship of resources and sensitivity to their impacts.

Developed by the U.S. Green Building Council (USGBC), LEED provides building owners and operators a concise framework for identifying and implementing practical and measurable green building design, construction, operations and maintenance solutions.

LEED is flexible enough to apply to all building types – commercial as well as residential. It works throughout the building lifecycle – design and construction, operations and maintenance, tenant fitout, and significant retrofit. And LEED for Neighborhood Development extends the benefits of LEED beyond the building footprint into the neighborhood it serves.

(“The Dollars and Cents of Green Construction” by Andrew Meyerson, May 2005)

Site Selection

Sites were selected by City of Sedona staff with input from the Drachman Institute. Three demonstration sites were chosen based on their location, size, and adjacencies to explore different housing models and densities.
Site Selection

Small Site

This site was chosen based on its location as a type of transitional zone (located between residential and commercial) to demonstrate how affordable housing could be developed on a small residential lot with increased density. Because of its location, the flexibility of this site could allow for a live/work or retail component. This site might lend itself to duplex or triplex residential and/or live/work units.

SITE DATA

Location: 89A & Inspirational Dr.
Size: 0.22 Acres
Current Zoning: RS-10a (Single Family Residential)
Current Density Allowance: 4 Units per Acre
Current Height Restrictions: 25 feet
Current Setbacks:
  - Front Yard: 20 feet
  - Side Yard: 10 feet
  - Rear Yard: 25 feet
Adjacent Land Use(s):
  • Residential (Single Family)
  • Commercial
Landscape Elements:
  • None
Looking West
This site was chosen based on its location near residential neighborhoods and public amenities such as libraries, schools, government buildings, and commercial developments. The site lends itself well to multi-family housing at a higher density based on its current classification as a transitional zone, and its location near public amenities and the commercial core.

**SITE DATA**

**Location:** White Bear Rd. & Dry Creek Rd.

**Size:** 1.17 Acres

**Current Zoning:** T2 (Transitional) (explored as RM-2 - High Density Multi Family Residential)

**Current Density Allowance:** 12 units per acre

**Current Height Restrictions:** 25 feet

**Current Setbacks:**
- Front Yard: 20 feet
- Side Yard: 10 feet
- Rear Yard: 25 feet

**Adjacent Land Use(s):**
- Residential (Single Family)
- Civic

**Landscape Elements**
- Many established native trees
The largest site was chosen for its location along a main commercial corridor and its proximity to some relatively higher density residential neighborhoods to demonstrate how affordable housing could be developed appropriately at a higher density than Sedona currently allows (20 units per acre). This site was also chosen to demonstrate how a mixed-use development (residential and commercial/retail) can fit into the neighborhood context.

**SITE DATA**

**Location:** 89A & Southwest Dr.

**Size:** 6.2 Acres

**Current Zoning:** C2 (General Commercial)

**Lot Coverage:** 35% if affordable mixed-use

**Current Height Restrictions:** 25 feet

**Current Setbacks:**
- Front Yard: 15 feet
- Side Yard: 10 feet
- Rear Yard: None (20 feet adjacent to Res. zone)

**Adjacent Land Use(s):**
- Residential (Single Family)
- Commercial

**Landscape Elements:**
- Large rock outcropping at center of site
- Many established native trees
ARC 402 Student Designs

The Drachman Institute worked closely with City of Sedona staff to develop a series of affordable, sustainable, and site-appropriate housing prototypes. Peter McBride and Corky Poster with the Drachman Institute led five 4th-year professional architecture students in an intensive four-week design studio project at The University of Arizona School of Architecture (ARC 402 class). Through the class, students developed hypothetical affordable housing designs for three sizes of sites demonstrating different configurations and densities, and presented their drawings and models at a public community meeting in Sedona.
PROJECT DATA

Title: Sedona Housing: New Opportunities

Designer: Jenn Rios

Function: Live/Work and Multi-Family Residential

Density: 13.63 Units per Acre

Number of Units: 3
  • 1 One-bedroom live/work
  • 2 Two-bedroom townhouses

Size of Units: Approximately 850 square feet

Height: 25 feet

Number of Stories: 2

Design Features:
  • Balconies face the street to make connections with the neighborhood and enliven the pedestrian experience
  • Live/Work unit provides an appropriate transition between commercial and residential zones

Sustainability Features:
  • Passive solar orientation
  • Self-shading courtyards

Materials: Local sandstone, stucco, local timber

Site Features/Landscape Elements:
  • 8 Parking Units (5 covered)
My initial concept for this project sprang from the idea of delineating the line between architecture and nature. The complex amount of natural and beautiful elements were not to be obstructed. With this in mind, I decided to allow the nature to be seen through the buildings and for them to blend into their surroundings.

- Jenn Rios
PROJECT DATA

Title: The Glen
Designer: Glenn Buack
Function: Residential (Multi-family)
Density: 12.00 Units per acre
Number of Units: 14
Size of Units: Varies
Height: 25 feet
Number of Stories: 1-2

Design Features:
• Taller buildings located toward the center of the site
• Lower one-story units at the street
• Large porches/balconies for private open space and maximized views for occupants

Sustainability Features:
• Passive (north/south) solar orientation

Materials:
• Local sandstone
• Stucco
• Local timber

Site Features/Landscape Elements:
• Established native trees
• New street trees
• Vegetated parking buffer
City of Sedona Affordable Housing Prototypes
Title: Sedona: The Node
Designer: Davina Sanmuganathan
Function: Residential (Multi-family)
Density: 12.28 Units per acre
Number of Units: 14
  • 3 Efficiency units (Studio)
  • 2 Two-bedroom w/loft
  • 6 Two-bedroom/two level
  • 3 Three-bedroom
Size of Units: 472-1,250 square feet
  • Efficiency unit (Studio) = 472 square feet
  • Two-bedroom w/loft = 940 square feet
  • Two-bedroom/two level = 875 square feet
  • Three-bedroom = 1,250 square feet
Height: Up to 22 feet
Number of Stories: 1-2
Design Features:
  • Buildings oriented toward southeast and northwest to maximize views (both for residents and adjacent neighbors)
  • Each unit is designed to maximize its private open space by use of balconies, courtyards, and porches
  • Taller building heights located toward center to minimize visual impact
  • Lower building heights located along street
Sustainability Features:
  • Passive and active rainwater harvesting
  • Natural ventilation and lighting
Materials:
  • Local sandstone
  • Stucco
  • Local timber
Site Features/Landscape Elements:
  • Parking separated from housing
  • Additional street trees
  • Connecting courtyard and foot paths
  • Vegetated parking buffer
The concept for The Node residential complex was to entangle the rigid structure of architecture and the fluidity of nature. This was achieved by focusing the buildings to the views, and by having interior courtyards within the residence as well as between residences.

-Davina Sanmuganathan
ARC 402 Student Designs
Medium Site (Continued)

EFFICIENCY UNIT- 472 S.F.
SCALE: 1/8"=1'-0"

2 BEDROOM W/LOFT UNIT- 940 S.F.
SCALE: 1/8"=1'-0"

2 BEDROOM-2 LEVEL UNIT- 875 S.F.
SCALE: 1/8"=1'-0"

SOUTH WEST VIEW
SEDONA LAND USE CODE- EXPOSED MASS HEIGHTS

SOUTH EAST VIEW
SEDONA LAND USE CODE- MAX HEIGHT 22 ft

SOUTH WEST VIEW
3 BEDROOM UNIT-1250 S.F.

SCALE: 1/3"=1'-0"

EAST VIEW

SEDONA LAND USE CODE- EXTRUSION OF MASSES
PROJECT DATA

Title: Sedona Links
Designer: Charles S. Mueller
Function: Mixed-Use (retail at level 1, residential above)
Density: 20 Units per acre
Number of Units: 72
  • 38 Efficiency units (Studio)
  • 29 One-bedroom
  • 5 Two-bedroom
Size of Units: 416-851 square feet
  • Efficiency unit (Studio) = 416 square feet
  • One-bedroom = 474 square feet
  • Two-bedroom = 851 square feet
Size of Commercial Space: 15,000 square feet
Height: 22-35 feet
Number of Stories: 2-3
Design Features:
  • Commercial space at street level with residential above
  • 3rd story strategically located at interior of site to preserve viewsheds from adjacent properties
  • Provides public open space
Sustainability Features:
  • Passive and active rainwater harvesting
  • Minimized footprint
  • Energy-efficient massing of units
Parking Provided: 166 Spaces
Materials:
  • Local sandstone
  • Stucco
  • Local timber
Site Features/Landscape Elements:
  • Additional street trees
  • Vegetated parking buffer
  • Public plaza/gathering area
ARC 402 Student Designs
Large Site South End (Continued)
EAST ELEVATION

WEST ELEVATION
PROJECT DATA

Title: The Living House
Designer: Paige Greene
Function: Residential (Multi-family)
Density: 20 Units per Acre
Number of Units: 40
Size of Units: 600-1,064 square feet
- One-bedroom = 600 square feet
- Two-bedroom = 900 square feet
- Three-bedroom = 1,064 square feet
Height: 22-35 feet
Number of Stories: 1-3

Design Features:
- Individual parking underneath 2nd story
- Taller building heights centralized to maximize viewsheds for adjacent neighbors
- Setbacks and open space provided for existing adjacent neighborhoods

Sustainability Features:
- Passive rainwater harvesting
- North/South passive solar orientation, photovoltaic integration
- Minimized heat island effect via covered parking

Materials:
- Local sandstone
- Stucco
- Local timber

Site Features/Landscape Elements:
- Existing trees left in place - development in response to their locations
- Large rock outcropping (third story screen)
- New vegetated open space
ARC 402 Student Designs
Large Site North End (Continued)
Further Designs

Based on feedback from the public and discussions with City of Sedona staff, Drachman Institute staff made updates to the student designs and developed additional concepts and presented these to the City of Sedona Planning and Zoning Commission.
**Further Designs**

**Small Site**

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**PROJECT DATA**

- **Parcel Size:** 0.22 Acres
- **Proposed Density:** 18 Units per acre
- **Proposed Number of Units:** 4
  - 2 Efficiency units (Studio)
  - 2 One-bedroom
- **Size of Units:** 500 - 700 square feet
  - Studio unit = 500 square feet
  - One-bedroom unit = 700 square feet
- **Parking Spaces Provided:** 7 (4 Covered)
- **Function:** Residential (Multi-family)
- **Number of Stories:** 2
- **Height:** 25 feet

**Sustainability Features:**
- Photovoltaic panel integration
- North-facing clerestory on 2nd story for natural lighting
- Designed for passive heating/cooling via appropriate solar orientation
- Native trees (drought tolerant and minimal water use)
- Rainwater harvesting systems

**Materials:**
- Local sandstone
- Local timber
- Stucco
- Metal roof

**Site Features/Landscape Elements:**
- Passive rainwater harvesting via swale/basin landscaping
Sedona Affordable Housing Prototypes
Further Designs
Large Site North End

PROJECT DATA

Parcel Size: Approx. 2.1 Acres
Proposed Density: 20 Units per Acre
Proposed Number of Units: 40
Size of Units: (see student project, “The Living House”)
Parking Spaces Provided: 85
Function: Residential (Multi-family)
Number of Stories: 2-3
Height:
  - Two Story - 25 feet
  - Three Story - 35 feet

Design Features:
  • Designed in response to existing vegetation and focuses on the integration of homes into the natural landscape
  • Parking is strategically designed to tuck into homes which allows parking to be spread out through each unit rather than centrally clustered
  • Taller buildings have been concentrated towards the center of the site to maximize existing views for neighbors
  • Three story designs are strategically located near landforms (such as rock outcroppings) which lessen the impact of a taller building

Sustainability Features:
  • Passive rainwater harvesting
  • North/South passive solar orientation for each unit
  • Includes architecturally design-based photovoltaic integration

Materials:
  • Local sandstone
  • Local timber
  • Stucco

Site Features/Landscape Elements:
  • Large rock outcropping (third story screen)
  • Established native trees
  • Setback and open space are provided for existing adjacent neighborhoods
Further Designs
Large Site South End

PROJECT DATA

Parcel Size: 4.1 Acres
Proposed Density: 20 Units per Acre
Proposed Number of Units: 72
Size of Units: 416-851 square feet
Parking Spaces Provided: 166
Function: Mixed-use (Commercial and Residential)
Size of Commercial Space: 15,000 square feet
Number of Stories: 2-3
Height:
   Two Story - 25’
   Three Story - 35’
Design Features:
   • Based on a mixed-use model which combines commercial use at the street/pedestrian level with one to two stories of residential use above
   • Any third story section is strategically located at the interior of the site so that desired views from adjacent properties are not impacted.
Sustainability Features:
   • Passive rainwater harvesting
   • Consolidated footprint means that heating and cooling costs are minimized by build-in insulation value (created by shared wall) while also decreasing disturbances to the natural environment
   • Mixed-use model provides incentives for developers: they can charge more for the commercial sections in order to offer lower rates to residential tenants. (Creating affordable living space increases social and economic sustainability.)
Material:
   • Stucco
   • Local sandstone
   • Local timber
Site Features/Landscape Elements:
   • Includes areas dedicated to public open space
   • New street trees
   • Vegetated parking buffers
Recommendations
To help facilitate quality affordable housing that fits into the community context of Sedona, a policy change to allow for increased density should be considered. There are many benefits of increased density not only for housing affordability, but for the entire community as a whole. These include:

- Allowing higher density for infill locations (especially in applying a mixed-use model) can revitalize slowing commercial areas and increase sales-tax revenues.
- Allowing higher density for infill locations where infrastructure and service capacity is already in place and paid for saves money for taxpayers and future residents.
- Allowing higher density (especially in applying a mixed-use or live-work model) minimizes the demand for transportation infrastructure and expenses and helps promote a more pedestrian-friendly and environmentally-friendly community.
- Allowing higher density using a mixed-use model provides an incentive for developers to create affordable housing by having the ability to charge higher retail rents to offset lower rents for residential units.
- Allowing higher density promotes energy efficiency through inherent insulation values via shared walls, floors, and ceilings.

To provide an avenue to incentivize affordable housing and provide control devices for the community, it is recommended that the City of Sedona adopt zoning policy that allows a higher density for affordable housing in exchange for an extensive design review process by the City (with assurances for a timely review).

This would allow developers to build affordable housing at a higher density, while allowing the city and community to ensure appropriate and contextual design on an individual project basis. This design review process and density bonus may apply only to those projects receiving a certain amount of subsidy in order to produce affordable units.
To encourage sustainable and equitable community design that enhances the beauty and uniqueness of the City of Sedona, a policy change to either decrease the parking requirements or provide more flexible requirements should be considered. In the City of Sedona, most renting households own either zero vehicles or one vehicle (see adjacent figures); this percentage is even higher in Cottonwood. However, current zoning codes in Sedona mandate more than one parking space per residential unit:

- Single Family Residence or Duplex: 2 Spaces
- Efficiency Units (Studios): 1.25 Spaces
- One-bedroom Units: 2 Spaces
- Two or More Bedroom Units: 2.5 Spaces

This discrepancy between actual parking needs and mandated parking requirements has many adverse effects including:

- Increased costs per residential unit (increasing infrastructure costs and decreasing valuable land use for additional housing units or open space)
- Decreased affordable housing (forcing residents to pay the costs of parking infrastructure they do not use)
- Increased environmental costs (increasing impermeable surfaces causing erosion and increased storm water mitigation infrastructure costs, increasing the heat island effect with large amounts of paving, and decreasing natural habitat and open space).

To mitigate both the negative environmental and economic impacts of oversized parking lots and outdated parking requirements, it is recommended that the City of Sedona adopts zoning policy that either decreases or provides flexibility of the parking requirements for affordable housing projects.

If parking requirements are not decreased across the board, then a decrease for affordable housing projects could be provided in exchange for an extensive design review process by the City. This would allow developers to build affordable housing at a lower cost while allowing the city and community to ensure appropriate and contextual design on an individual project basis. This design review process and parking requirement decrease may apply only to those projects receiving a certain amount of subsidy in order to produce affordable units (if not city wide).
Appendix
The Drachman Institute will collect and analyze demographic information, physical and zoning maps, Schematic designs are not intended to be construction documents; schematic designs serve the Drachman Institute staff will become familiar with Final presentation of schematic designs of three Drachman Institute will analyze existing Zoning Drachman Institute will deliver a series of final sc Drachman Institute will develop a series of conceptual designs for three housing types. Drachman Institute will perform a preliminary site analysis and Sedona's Design Guidelines and will develop affordable and sustainable housing designs that meet/confirm to those guidelines. The Drachman Institute will also participate in public presentations and educational opportunities in support of Sedona’s affordable housing initiatives. The City of Sedona is responsible for advertising and arranging public meetings and assisting in coordination of appropriate dates and times for presentations and public meetings. The City of Sedona shall assist in obtaining all information requested by the Drachman Institute (especially with regard to demonstration sites) in a timely and efficient manner. If any information requested is not available, the City of Sedona shall notify the Drachman Institute in a timely manner. The execution and success of the Affordable Housing Prototype Design project is partially dependent upon obtaining such information through the City of Sedona.

The official contact person for this project at the City of Sedona is:
Jessica Williamson City of Sedona 102 Roadrunner Drive Sedona, AZ 86336 928.203.5045 (phone) 928.282.5348 (fax) jwilliamson@sedonaaz.gov

Project Schedule Overview

<table>
<thead>
<tr>
<th>Item</th>
<th>Projected Completion Date</th>
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<td>Inventory and Analysis of Demographics, Maps, Design Guidelines</td>
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<td>Project Scope Meeting &amp; Sedona Site Visit</td>
<td>TBD (January 2009)</td>
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<td>Potential Sites, Zoning, and Code Analysis</td>
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<td>Concept Design</td>
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<td>Schematic Design</td>
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<td>Sedona Community Meeting + Final Presentation</td>
<td>TBD (June 2009)</td>
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Scope of Work Overview

Inventory and Analysis of Demographics, Maps, Design Guidelines
- The Drachman Institute will collect and analyze demographic information, physical and zoning maps, and Sedona’s Design Guidelines

Project Scope Meeting & Sedona Site Visit
- Drachman Institute staff will meet with City of Sedona Housing and Planning staff to formulate scope of work and identity densities, potential sites, and types of affordable housing prototypes.
- Drachman Institute staff will become familiar with the Sedona area and obtain site/context photos and maps.

Potential Site(s), Zoning, and Code Analysis
- Drachman Institute will perform a preliminary site analysis of the selected parcels. Items may include the location of any physical features (vegetation, existing buildings, etc.), access points for future residents, topography, site context, allowable coverage, height, and density.
- Drachman Institute will analyze existing Zoning, Building, and Land Use codes and ordinances.

Concept Design
- Drachman Institute will develop a series of conceptual designs for three housing types.

Sedona Staff and Community Meeting + Presentation One
- Presentation of conceptual designs to City of Sedona Housing and Planning staff and the Sedona community for review.

Schematic Design
- Drachman Institute will develop Schematic Designs for three housing types based on the conceptual designs and feedback from the City of Sedona.
- Schematic designs are not intended to be construction documents; schematic designs serve the purpose of communicating to the draftsman and/or architect who will be doing construction documents the full intentions of the project. Schematic designs will include overall site features, circulation, housing plans, material pallets, and intentions for construction.

Sedona Staff and Community Meeting + Final Presentation
- Final presentation of schematic designs of three affordable housing types to the City of Sedona Housing and Planning staff and the public community.

Deliverables:
- Drachman Institute will deliver a series of final schematic presentation-quality printed drawings and models along with digital copies of presentations as generated through this study.
SHOWCASING QUALITY AFFORDABLE HOUSING DESIGN

The City of Sedona and the Housing Commission invite you to participate in a public presentation and discussion of some prototype design concepts for affordable housing prepared by architectural students enrolled at the University of Arizona’s Drachman Institute for Land and Regional Development Studies.

The Drachman Institute is preparing a series of schematic design drawings and models that show how affordable housing could fit into Sedona’s unique architectural and aesthetic context at a variety of densities. The design concepts are being prepared in accordance with Sedona’s Land Development Code and Design Review Manual. The students, who are preparing the concepts as part of a fourth-year professional architectural class, are coming to Sedona to present their concepts to the community and obtain feedback.

The students will present the design concepts for discussion at a public meeting on March 12, 2009 at St. Andrew’s Episcopal Church, 100 Arroyo Pinon Drive in Sedona, from 6:00 pm to 8:00 pm.

Everyone is invited to participate. Your comments and suggestions are important to the design process, and will be considered in preparing the final designs and models that will be presented at a second public meeting at a later date.

The Drachman Institute is preparing the design concepts at no cost to the City under a contract that the Drachman Institute has with the Arizona Department of Housing.

For more information contact Jessica Williamson, Associate Planner, at 928-203-5045 (jwilliamson@sedonaaz.gov) or Audree Juhlkin, Assistant Community Development Director, at 928-204-7107 (ajuhlkin@sedonaaz.gov)
A similar press release by the City of Sedona Community Development Department announcing the first public meeting in which preliminary student prototype designs were presented and discussed.

PRESS RELEASE
City of Sedona · 102 Roadrunner Drive · Sedona, AZ 86336

For Release on February 24, 2009

Date: February 24, 2009
Contact: Jessica Williamson, Community Development Department
Phone: 928-203-5045
Fax: 928-282-5348

UNIVERSITY OF ARIZONA ARCHITECTURAL STUDENTS COME TO SEDONA

In the course of the many public meetings that have been held to discuss affordable housing, Sedona residents have asked the Housing Commission and City staff “What would affordable housing look like? Will it fit into our community?” While there are many examples of well-designed affordable housing in other communities, it was understandably difficult for people to visualize how affordable housing might be designed to be compatible with Sedona’s unique natural beauty and rigorous architectural standards.

In order to respond to the community’s request for a visual representation of what well-designed affordable housing could look like in Sedona, the City is taking advantage of a unique program that taps into the talents of 4th year architectural students from the University of Arizona’s Drachman Institute for Land and Regional Development Studies. As part of their formal academic curriculum, five students are studying Sedona’s Land Development Code and Design Review Manual. They’ve met with City staff and visited Sedona to see first-hand how the community looks. Under the direction of their professors, they are using that information to develop hypothetical design concepts for affordable housing in Sedona for prototypical small sites, medium density residential sites, and mixed-use sites. The designs are entirely conceptual and do not represent any project or any proposal.

As part of their class requirements, the students will be presenting those hypothetical design concepts at a public meeting scheduled for Thursday, March 12, 2009 from 6:00 pm to 8:00 pm at St. Andrew’s Episcopal Church, 100 Arroyo Pinon Drive in Sedona. The purpose of the meeting is to allow the community the opportunity to review and comment on the hypothetical design concepts. After the students make their presentation and the community has had the opportunity to review and comment on the concepts, the designs will be refined and schematic drawings and models will be prepared. Those schematic drawings and models are intended to be used in the context of future community discussions about affordable housing. The schematic drawings and models will be entirely conceptual and will not represent any project or any proposal.
On March 12, 2009, architectural students at the University of Arizona’s Drachman Institute for Land and Regional Development Studies presented hypothetical design concepts for affordable housing in Sedona at a public meeting held at St. Andrew’s Episcopal Church. The purpose of the meeting was to allow the community the opportunity to review and comment on the hypothetical design concepts. Based on the community comments received at that meeting, the designs have been refined and schematic drawings and models prepared. Staff from the Drachman Institute will be presenting those drawings and models for discussion at the Planning & Zoning Commission meeting to be held on June 2, 2009 in the City Council Chambers starting at 5:30 pm.

The schematic drawings and models are intended to be used in the context of future community discussions about affordable housing. **The designs, which are for small sites, medium density residential sites, and mixed-use sites, are entirely conceptual and do not represent any project or any proposal.**

In the course of the many public meetings that have been held to discuss affordable housing, Sedona residents have asked Sedona’s Housing Commission and City staff “What would affordable housing look like? Will it fit into our community?” While there are many examples of well-designed affordable housing in other communities, the Sedona community asked for examples of how it might be designed to be compatible with Sedona’s unique natural beauty and rigorous architectural standards.

In order to respond to the community’s request for a visual representation of what well-designed affordable housing could look like in Sedona, the City took advantage of a unique program that taps into the talents of 4th year architectural students from the University of Arizona’s Drachman Institute. As part of their formal academic curriculum, five students studied Sedona’s Land Development Code and Design Review Manual, met with City staff, and visited Sedona to see first-hand how the community looks. That information was used in developing the hypothetical design concepts for affordable housing in Sedona.