

Retirement Village Final Design



Rendered Village
Overview Image

By Kyle Hakun and John Pacy

Goals

- ▶ Find Potential Construction Site
- ▶ Design 3 Building Retirement Community
- ▶ LEED v4 Gold Accreditation

Site Location and Topography

- ▶ Scottsdale, Arizona
- ▶ Relatively Level
- ▶ Over 200,000 sqft (4.6 Acres)
- ▶ Accessible Transit
- ▶ Optimal Climate



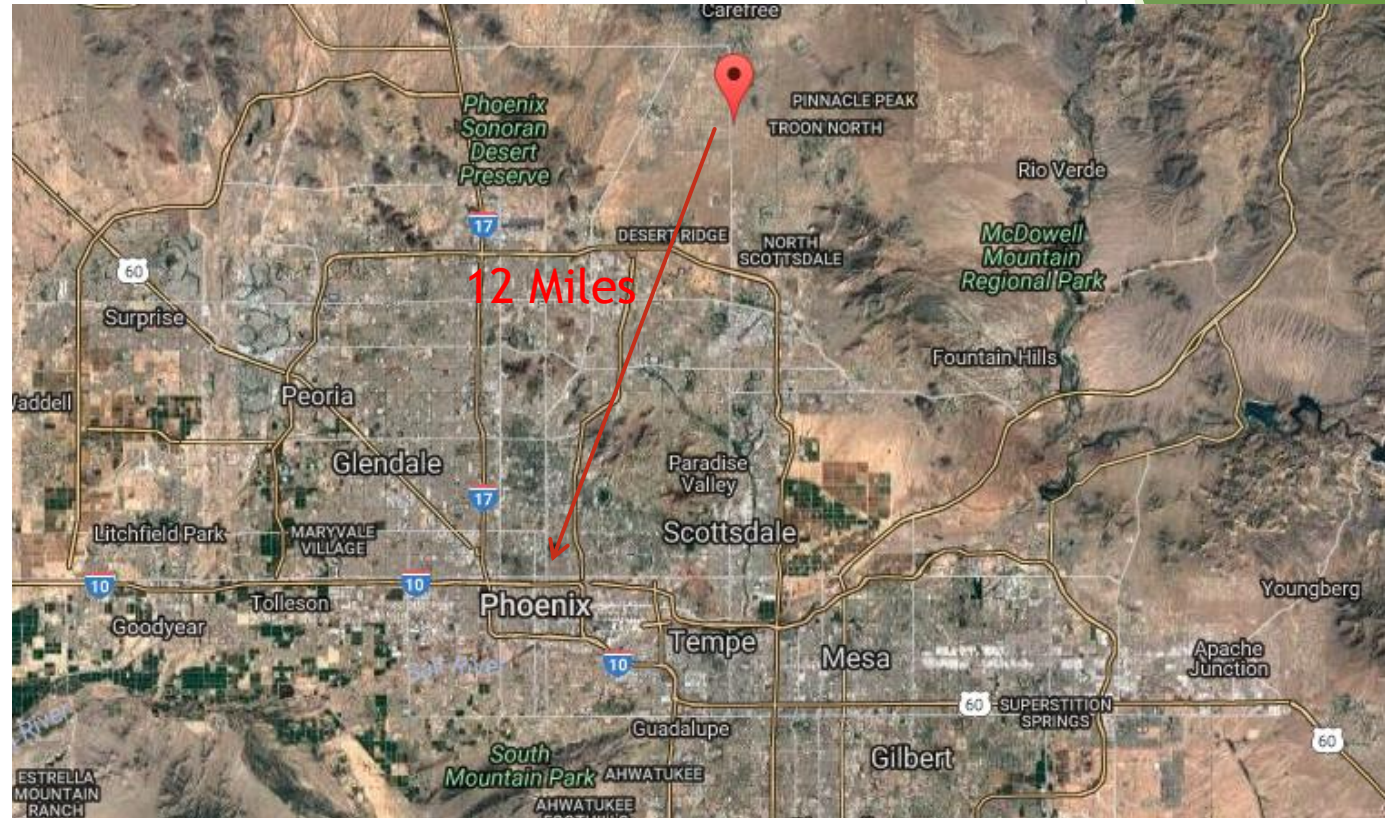
Image of the property we plan to purchase

Demographics

- ▶ Even distribution of men and women
- ▶ Relatively high average age (44.7 years)
- ▶ High yearly household income (\$69,000 compared to \$48,000)
- ▶ Low Crime Index (163 compared to 291)

Local Services and Conveniences

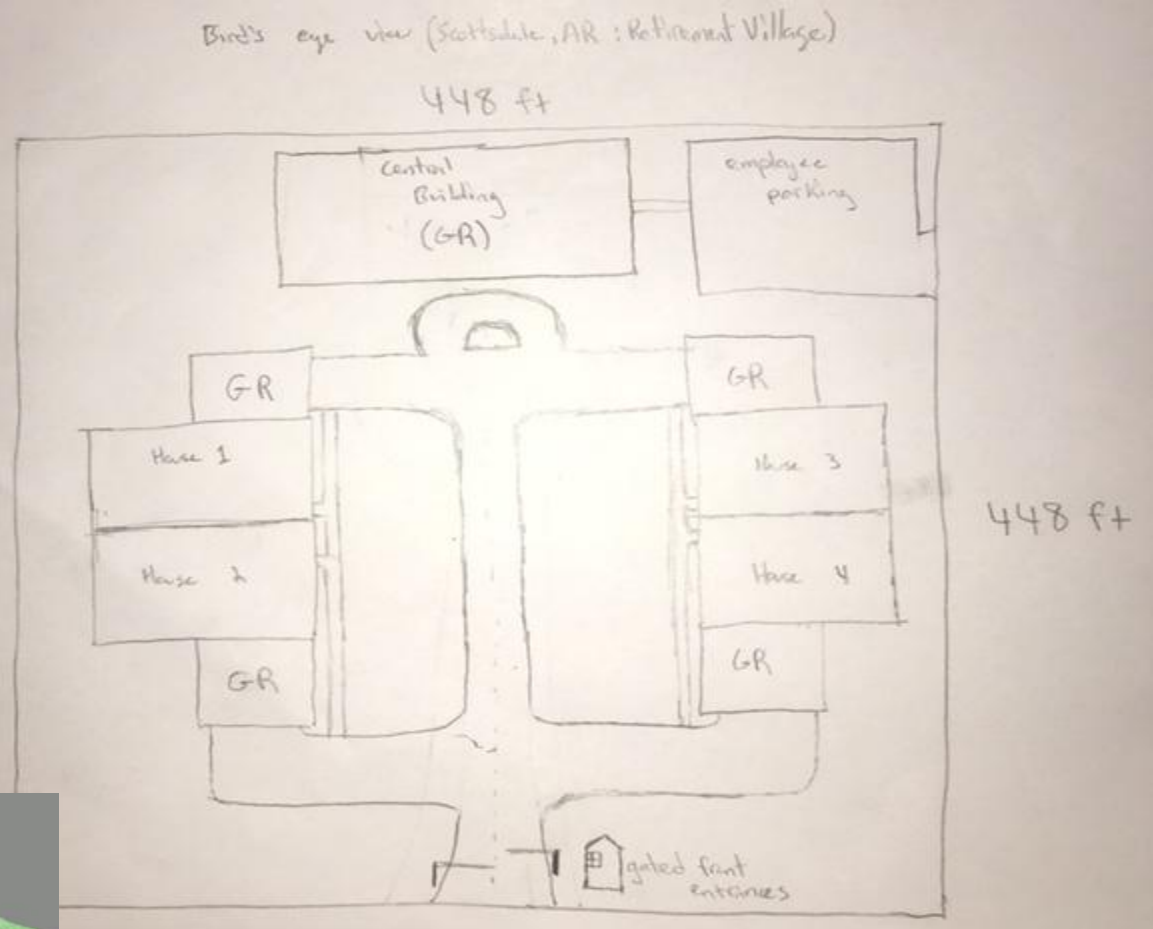
- ▶ Grocery Stores
- ▶ Public Transportation
- ▶ Health Care
- ▶ Shopping Malls
- ▶ Gas Stations
- ▶ Airports
- ▶ Trains
- ▶ Public Amenities



Phoenix International Airport 12 miles southwest

Building Site Layout

OLD



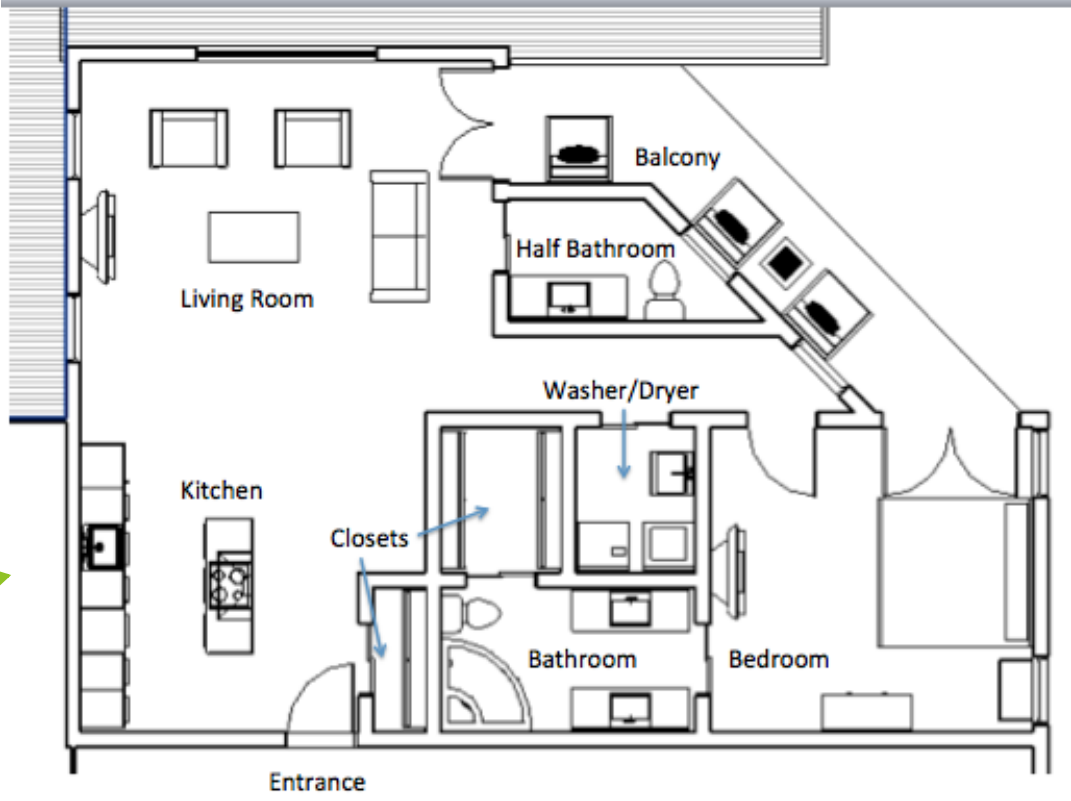
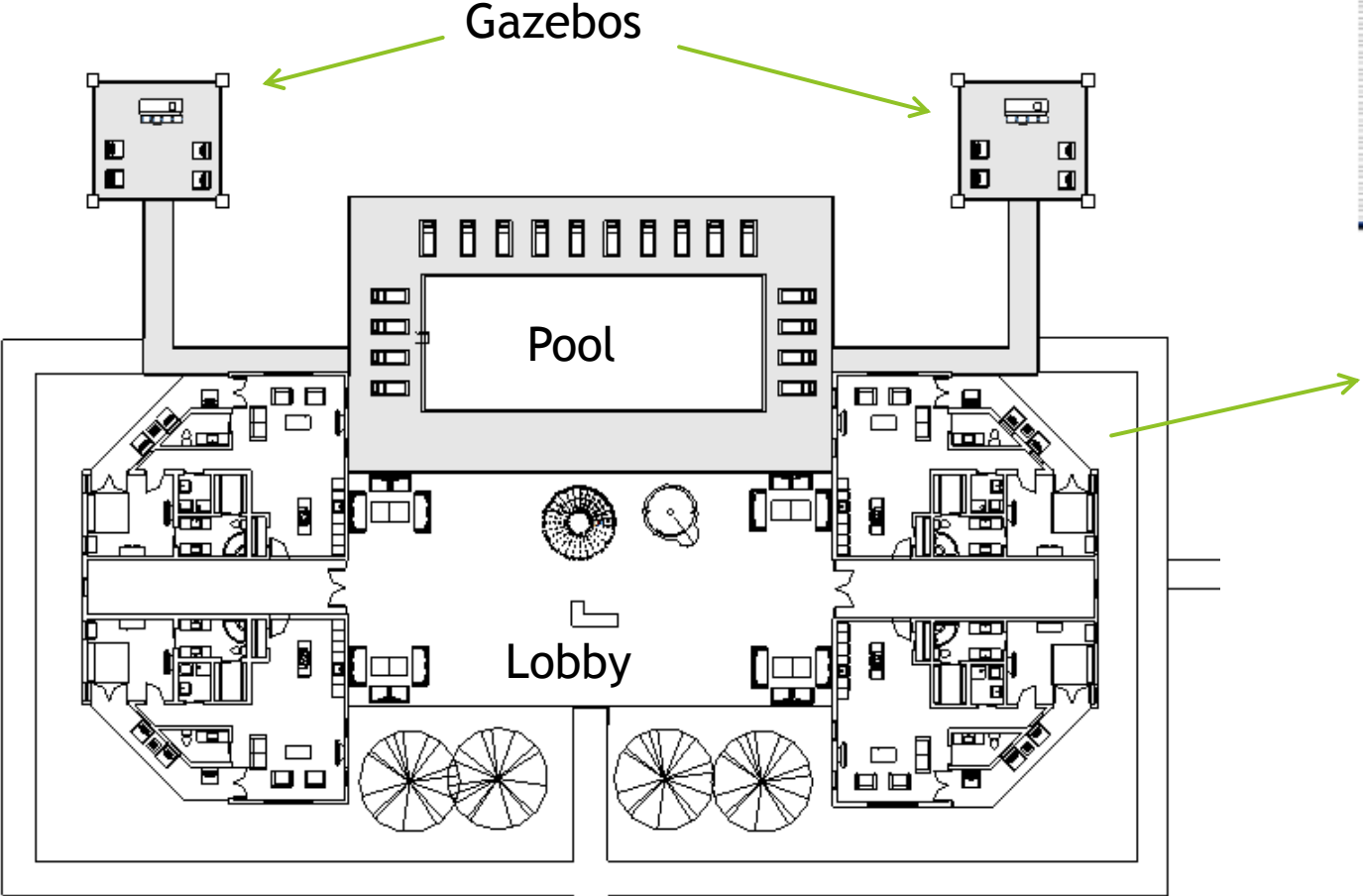
NEW

First Residential Building

Northern View



First Residential Building Floor Plans



Rendered Views of First Residential Building

Resident Unit
(single bedroom)



Lobby

Central Building



Southwestern View

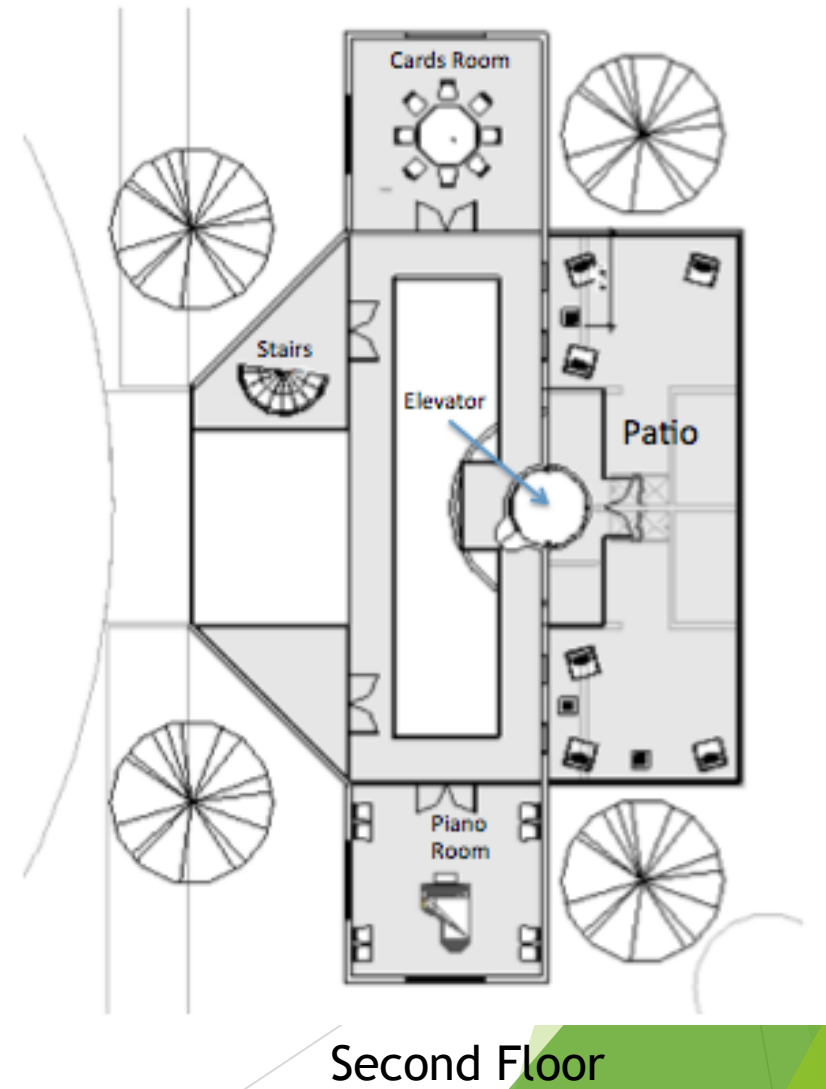
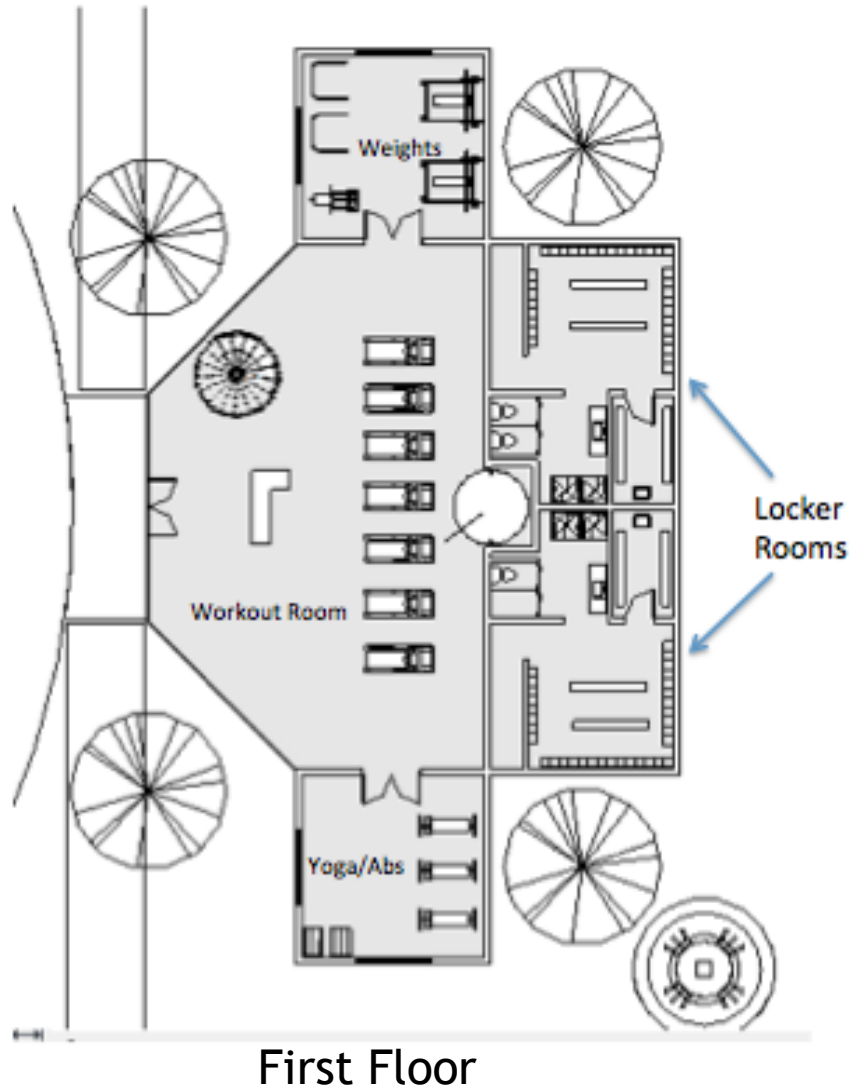


Southeastern View



Western View (Entrance)

Central Building Floor plans



Rendered Views of Central Building

Second Floor Interior



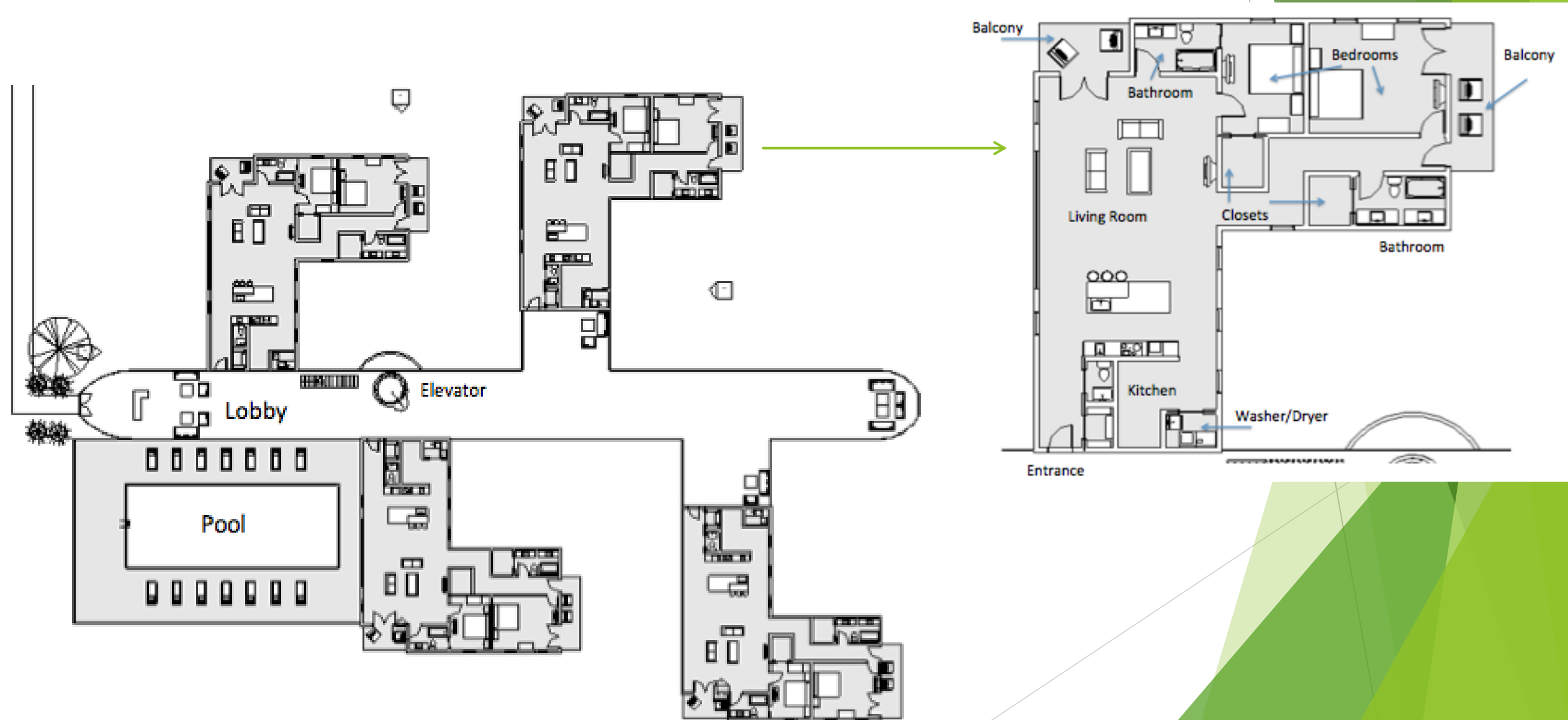
Treadmills on First Floor

Second Residential Building (Cactus Building)



Southwestern
View

Second Residential Building Floor Plans



Rendered Views of Second Residential Building



Lobby



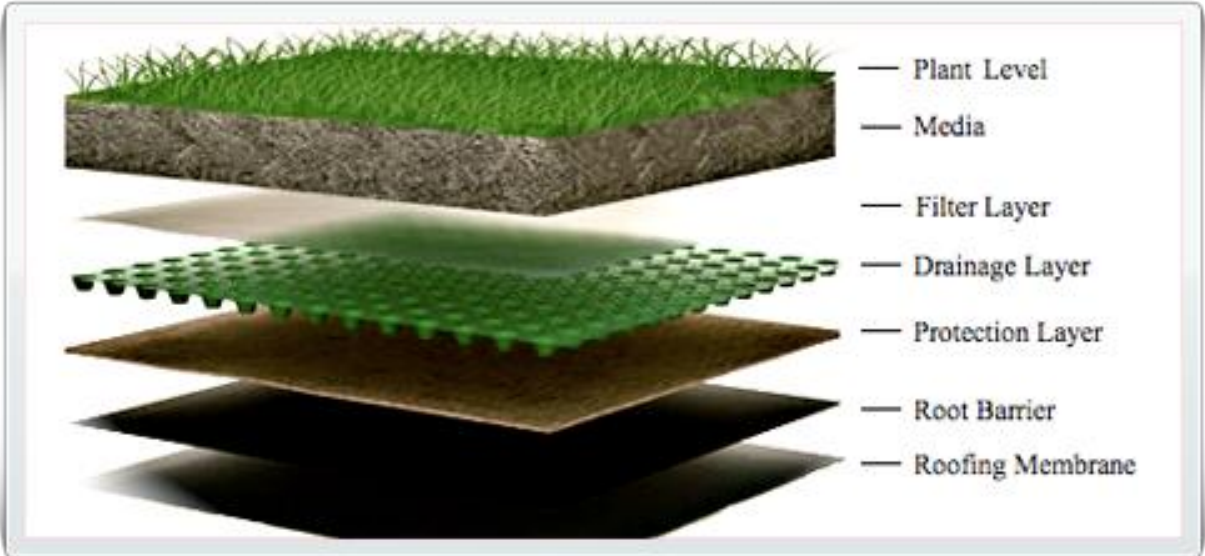
Sample Unit (2 bedroom apt)

Image of roof mounted solar array



Green Design Features

- ▶ Roof mounted solar array (Cactus Building)
- ▶ Green roof (Residential Building One)
- ▶ Fluorescent power saving bulbs and motion sensors
- ▶ Automated HVAC system
- ▶ Bike racks
- ▶ Water collection system
- ▶ Insulated windows



	Function	Material	Thickness	Wraps	Structural Material	Variable
1	Structure	Grass	0' 2"	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	Structure	Earth	0' 4"	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	Core Bound Layers Abo		0' 0"			
4	Structure	Air Infiltra	0' 1"	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	Structure	Plastic -	0' 2"	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	Structure	Laminate	0' 1"	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	Structure	Moisture	0' 1"	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8	Core Bound Lavers Belo		0' 0"			

Image of green roof components

LEED Compliances

- ▶ Central buildings LEED V4 for Neighborhood Development Plan checklist
 - ▶ Expected 62 of 110 possible points
 - ▶ Gold accreditation
- ▶ Residential buildings (also Neighborhood Development Plan)
 - ▶ Earned 72 of 110 possible points
 - ▶ Gold accreditation



LEED gold accreditation

Citations

- ▶ "Efficient Hot Water Distribution System | U.S. Green ..." N.p., n.d. Web. 21 Oct. 2016.
- ▶ "Green Roof Benefits - GRHC WEBSITE." *Green Roof Benefits*. N.p., n.d. Web. 20 Oct. 2016.
- ▶ "Property Listing Scottsdale Arizona." N.p., n.d. Web.
- ▶ "PVWatts Calculator." N.p., n.d. Web. 20 Oct. 2016.
- ▶ Rudge, Janet, *Dr. Moderating Home Temperatures for Older People's Health*. N.p., n.d. Web.
- ▶ "Scottsdale Arizona - City-Data.com." Scottsdale, Arizona. N.p., n.d. Web. 20 Oct. 2016.
- ▶ "The Ultimate Guide to Building Automation | Control Solutions." N.p., 22 Jan. 2015. Web. 20 Oct. 2016.