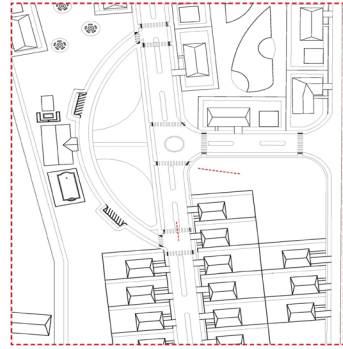






GREEN GROVE

SECTIONS



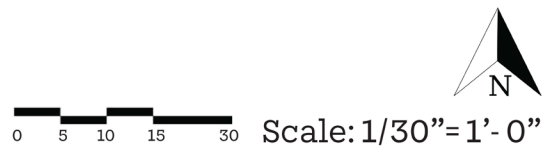
Playground Section



Zero-lot-line Housing Section



Project 2B- Community Design
 Lupe Franchi MLA.
 LARC 8120 Fall 23.
 T. Schurch, FASLA.



PLEASANT VIEW



PLANT SELECTION

Trees



Red Maple - *Acer rubrum*



Sourwood -
Oxydendrum arboreum



Mountain Laurel - *Kalmia latifolia*



MaidenHair Tree -
Ginkgo biloba



Fragrant Tea Olive -
Osmanthus fragrans



Japanese Camellia -
Camellia Japonica

Shrubs



Koreanspice Viburnum -
Viburnum carlesii



Glossy Abelia -
Abelia x grandifolia



Virginia Sweetspire -
Itea virginica



Sweet Box -
Sarcococca confusa



Inkberry - *Ilex glabra*

Project 2- Community Design
Lupe Franchi MLA.
LARC 8120 Fall 23.
T. Schurch, FASLA.

Geothermal Community Plan

Morton Farms Townhomes

Sustainable Energy

Jordan Livingston
Advanced Community Design
Master of Landscape Arch.
Project 3 November 2023
Dr. Thomas Schurch, FASLA

- Closed loop system
- 21 vertical wells drilled to 400' and spaced 20' O.C. supplying heating and cooling to 16- 1,750 ft² townhomes and a pool house.
- Energy station located inside pool house.
- A standard townhome with a 3 ton unit needs around 450 ft of pipe.

Energy Consumption

Townhomes:

16 x 450' = 7,200' of pipe

Pool house:

Assuming the equivalence of two townhomes:

1 x 900' = 900' of pipe

Total Pipe Needed:

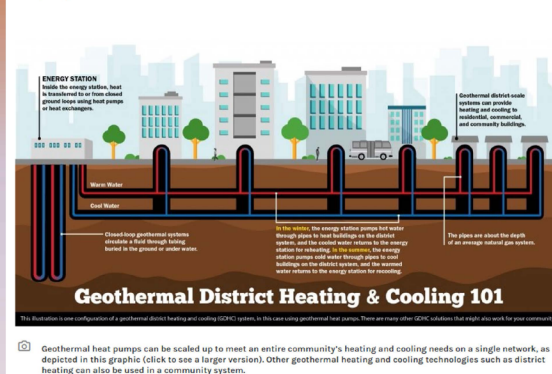
7,200' + 900' = 8,100'

Production from Wells

21 x 400' = 8,400'

A DISTRICT ENERGY APPLICATION

Community Geothermal Heating and Cooling Design and Deployment



Courtesy of US Department of Energy , Office of Energy Efficiency and Renewable:
<https://www.energy.gov/eere/geothermal/geothermal-heat-pumps>

4

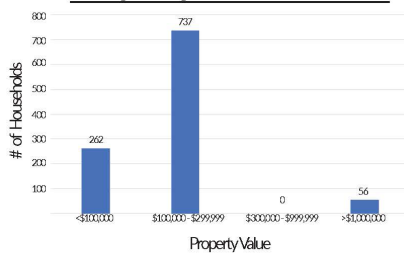
Source: Tony Putnam



Demographics & Home Market Values in Pendleton, SC

Advanced Community Design
Master of Landscape Arch.
Project 3 November 2023
Dr. Thomas Schurch, FASLA

Property Market Value

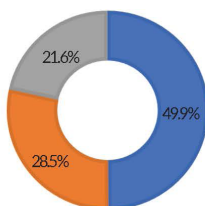


*Data gathered from the 2021 US Census Bureau.

Total # of households: 1,055

Households without mortgages: 459 (43.5%)

Income

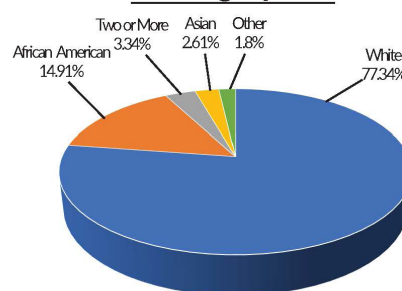


■ \$0-\$49,999 ■ \$50,000-\$99,999 ■ Over \$100,000

*Data gathered from the 2021 US Census Bureau.

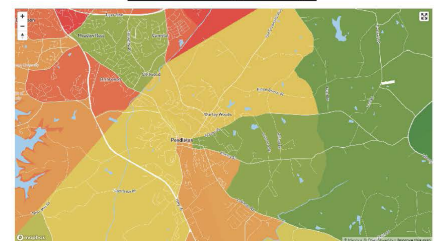
Median Household Income: \$52,784 (40.8% 1-Year Growth)

Demographics



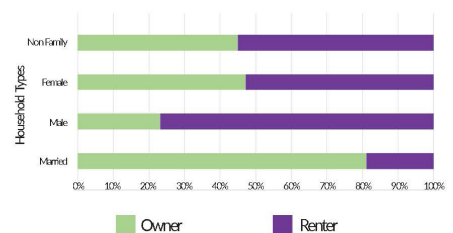
*Data gathered from the 2021 US Census Bureau.

Housing Map



■ Mostly Owner ■ Owners and Renters ■ Mostly Renters

Housing Tenure



*Data gathered from the 2021 US Census Bureau.

MORTON FARMS

City of Anderson Zoning Ordinance R-5 Classification Design

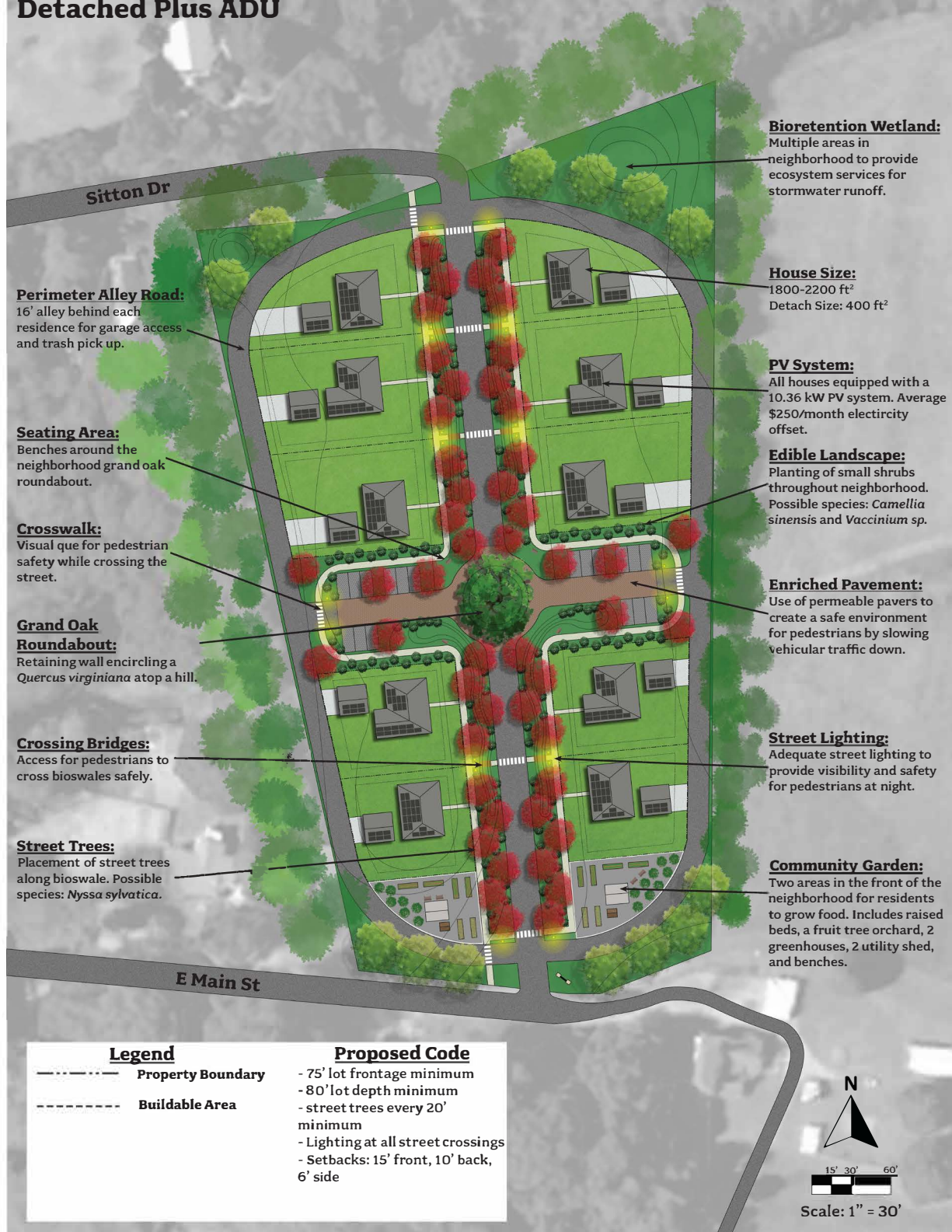
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MORTON FARMS

Site Design: R-5 Residential: Single Family Detached Plus ADU

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Master Tree Planting Plan

R-5 Residential: Single Family Detached Plus ADU

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Canopy Trees



Southern Live Oak *Quercus virginiana*

- Evergreen
- Wide canopy providing a large area of shade also slowing the rate of flow to the ground surface
- One of the best trees for carbon sequestration, estimated at around 11,000 lbs over lifetime¹
- Mature tree can absorb up to 100 gallons of water per day²
- Important wildlife tree



Blackgum *Nyssa sylvatica*

- Deciduous
- One of the best trees for water absorption during stormwater runoff events, bank stabilization, preventing soil erosion
- Tolerate of air and soil pollution
- Important wildlife tree

Possible Bioswale Species

- tolerant of wet soils or standing water
- bank stabilization
- prevention of soil erosion



Virginia Sweetspire *Itea virginica*



Buttonbush *Cephalanthus occidentalis*



Sweet Pepperbush *Clethra alnifolia*

Edible Landscape

- Provides food or medicinal use for people
- Provides food for wildlife



Tea Plant *Camellia sinensis*



Blueberry *Vaccinium sp.*

Planting Guidelines

- Add multiple different bioswale species to create variability with color and texture
- Make sure to plant trees where they will have adequate room for root and canopy growth
- Remove trees only when they are damaged or diseased

Sources:

- 1) <https://www.statista.com/statistics/1292740/tree-species-with-the-highest-lifetime-carbon-sequestration/>
- 2) <https://treenewal.com/watering-oak-trees/>

MORTON FARMS

Site Perspective: Townhomes

The Great Lawn

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Project 3 November 2023
Dr. Thomas Schurch, FASLA

Site Features:

- 1/4 mile gravel path loop
- Large open lawn
- Perimeter of mature trees on all sides for shading

Activities:

- Walking
- Biking
- Local Events
- Socializing
- Relaxation
- Games

