

Background and Research

The River Trail Apartments in Ogden, Kansas were originally built in 2008 as a townhome development on previously undeveloped land outside of Ogden, KS. However, the project stalled during construction, leaving 18 parcels unfinished. Some units were eventually purchased by the city or outside investors and are now sitting with decreasing property values. This indicates issues with the initial development's design and vision. In response, MAHFH and Frontier Group are currently proposing a collaborative rebuild of the 18 city-owned parcels into new sustainable and affordable townhomes. By utilizing low income housing programs and emphasizing placemaking strategies, the goal is to restart development in a way that benefits the larger neighborhood and community. This project presents an opportunity to create an architectural solution to this.

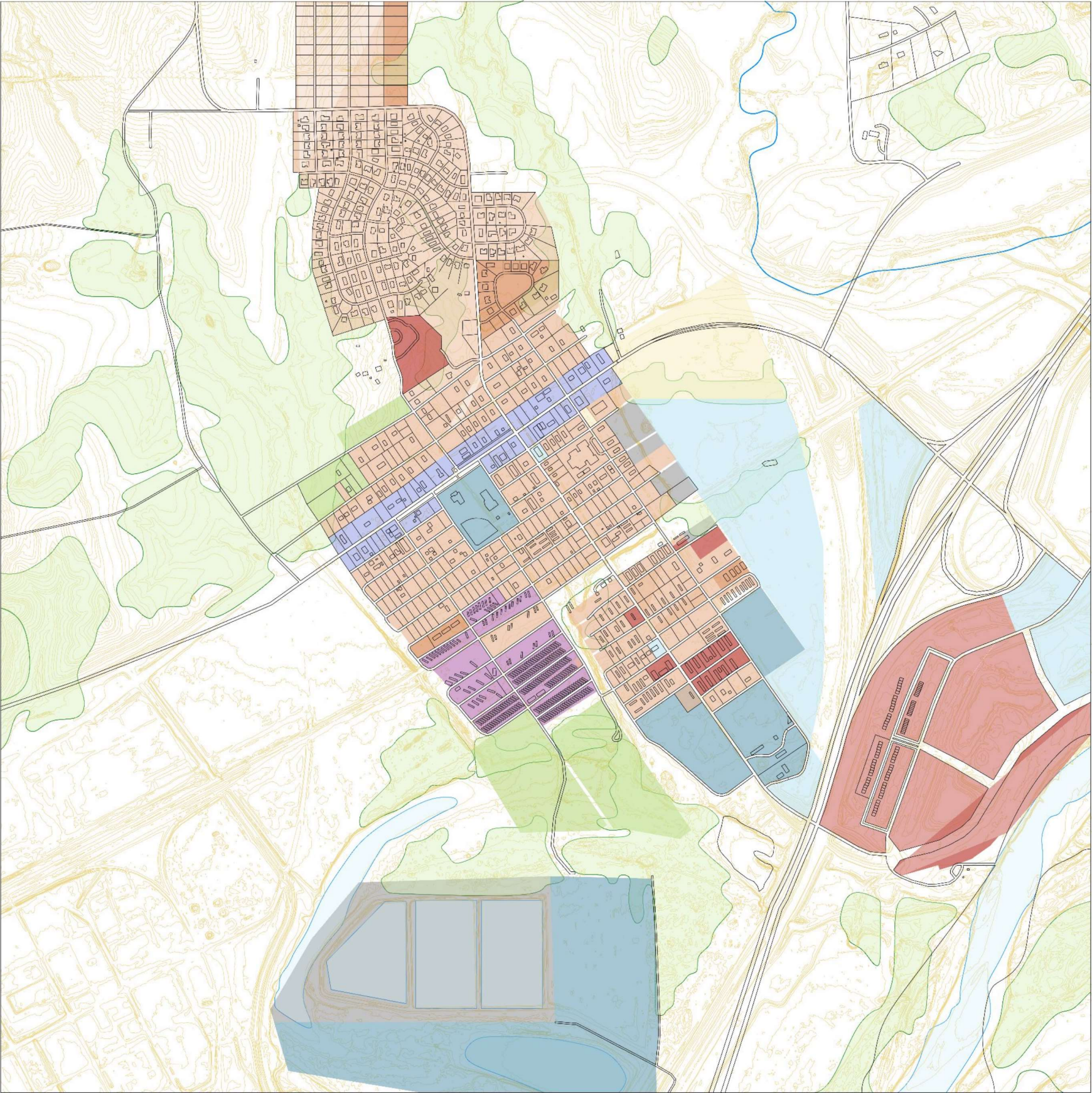
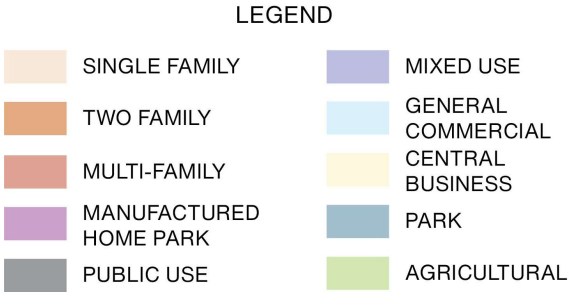
Pictured in the top row is our project site, while pictured below is the existing development.



Zoning and Topography

Zoning: The zoning in Ogden, Kansas reveal key insights into the city's development patterns. The predominant zoning classification is Residential (R), spanning the majority of the municipality from North to South. The eastern border abuts the Airport Overlay District, limiting expansion in that direction due to airport regulations. Surrounding agricultural parcels are zoned accordingly as well. The allocations in Ogden reflect residential prioritization with connections to central business and outdoor community spaces.

Topography: The topography of Ogden is predominantly flat, typical of the Great Plains region, with a notable exception on the Northernmost side of the city. In this area, the elevation increases, creating a geographic distinction from the rest of the relatively low-lying terrain. The northern area has been utilized for residential housing, excluding trailer homes. The slightly more elevated terrain has called for permanent dwellings, differentiated from the mobile homes found elsewhere within the city.



Housing Market Data/Analysis

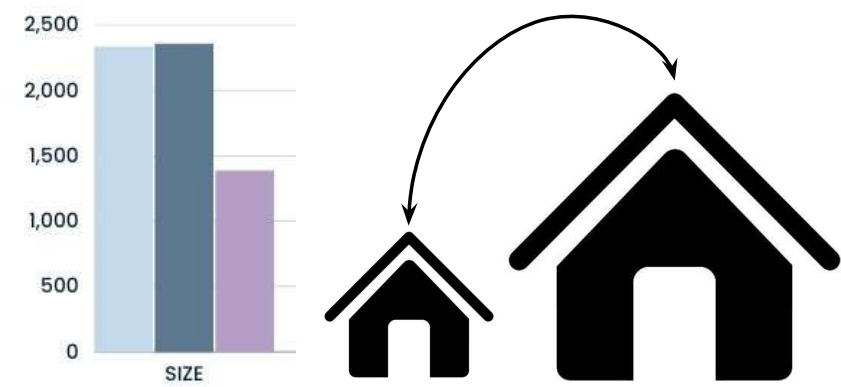
Median Income



Median House Price



Median House Size



Kansas City:

\$60,042

\$230,960

2,332 sf

Manhattan:

\$56,744

\$222,780

2,354 sf

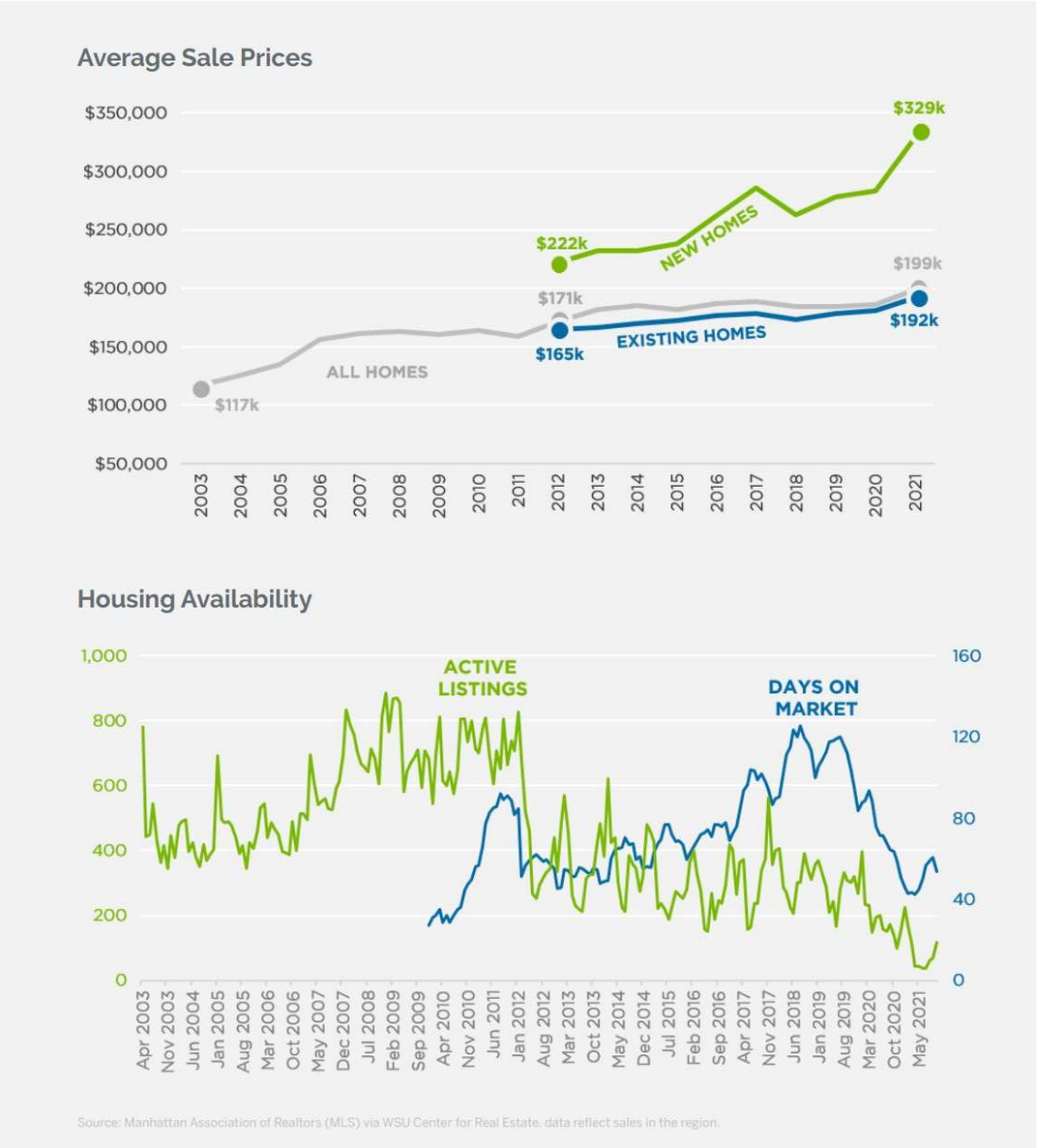
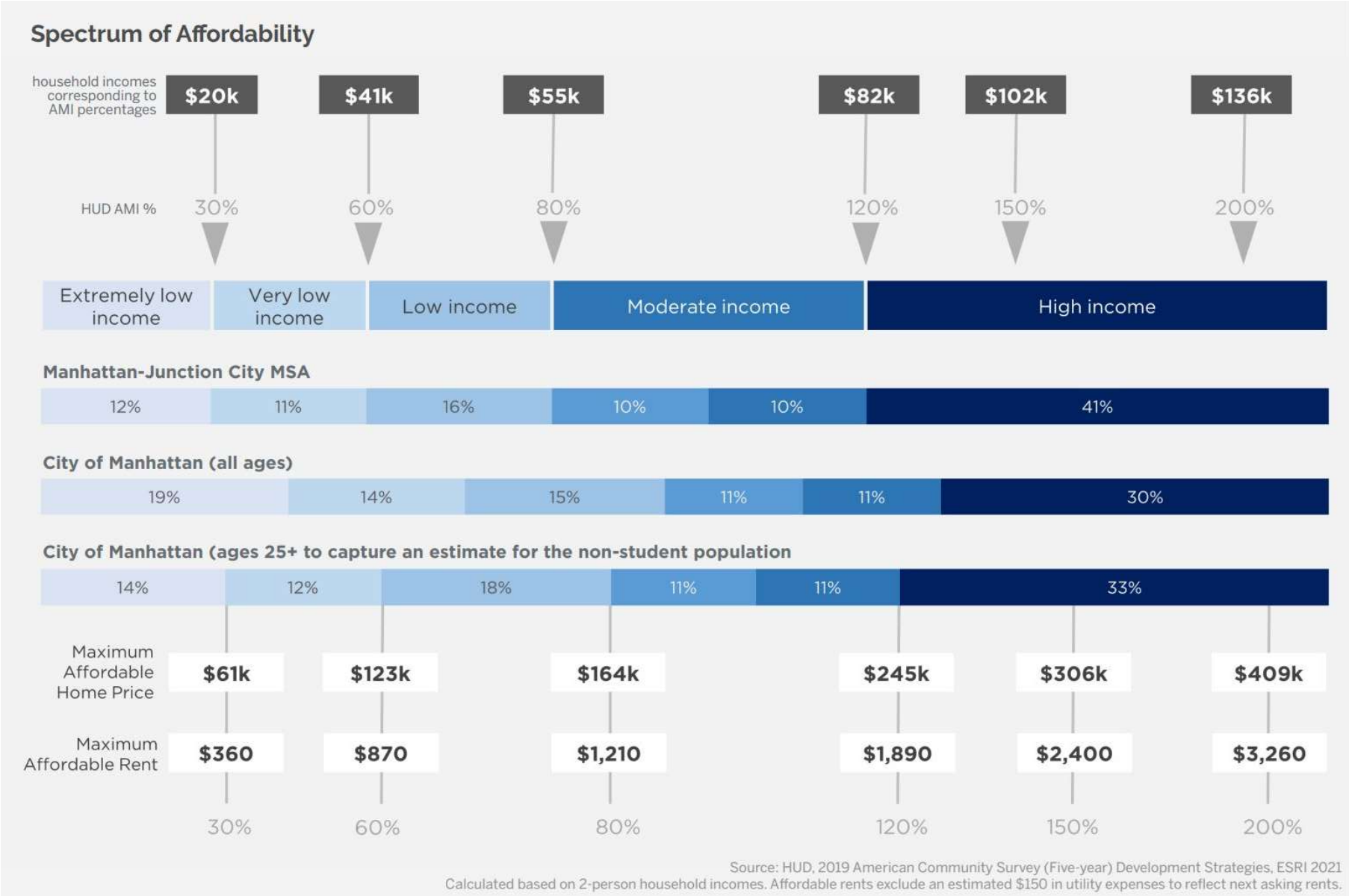
Ogden:

\$55,064

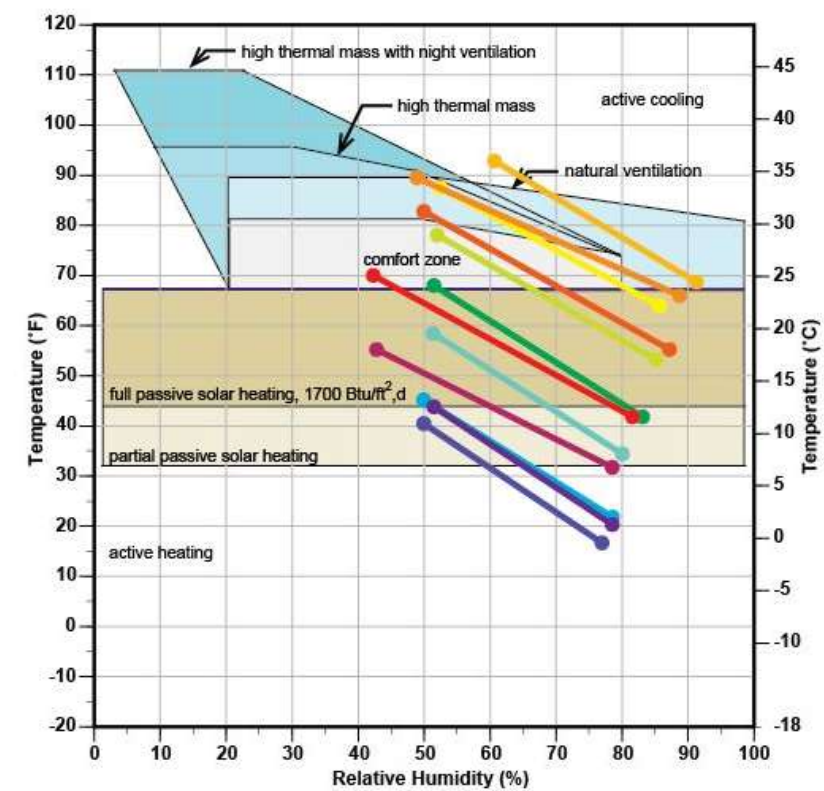
\$132,410

1,387 sf

Housing Market Data/Analysis

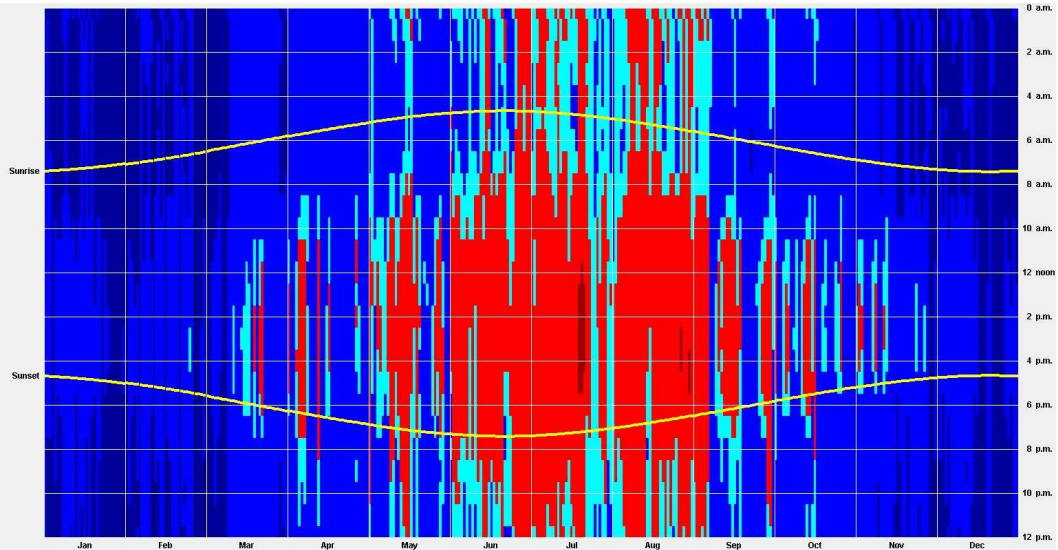


Bioclimatic Analysis

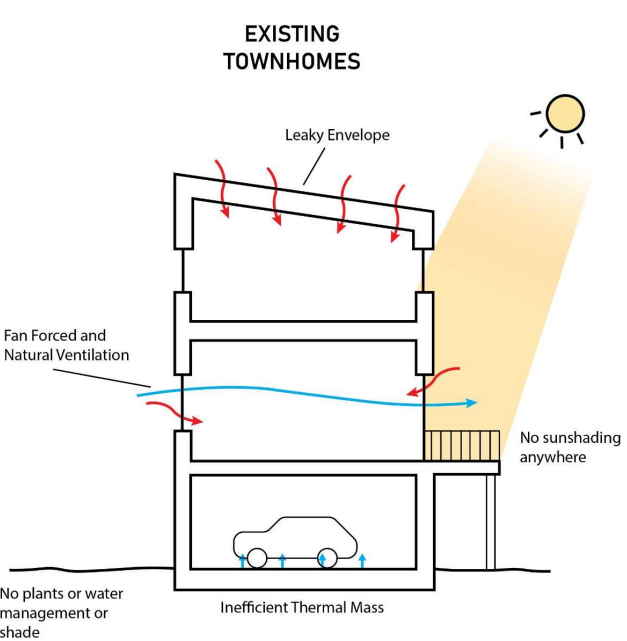


Bioclimate Chart and Table Data

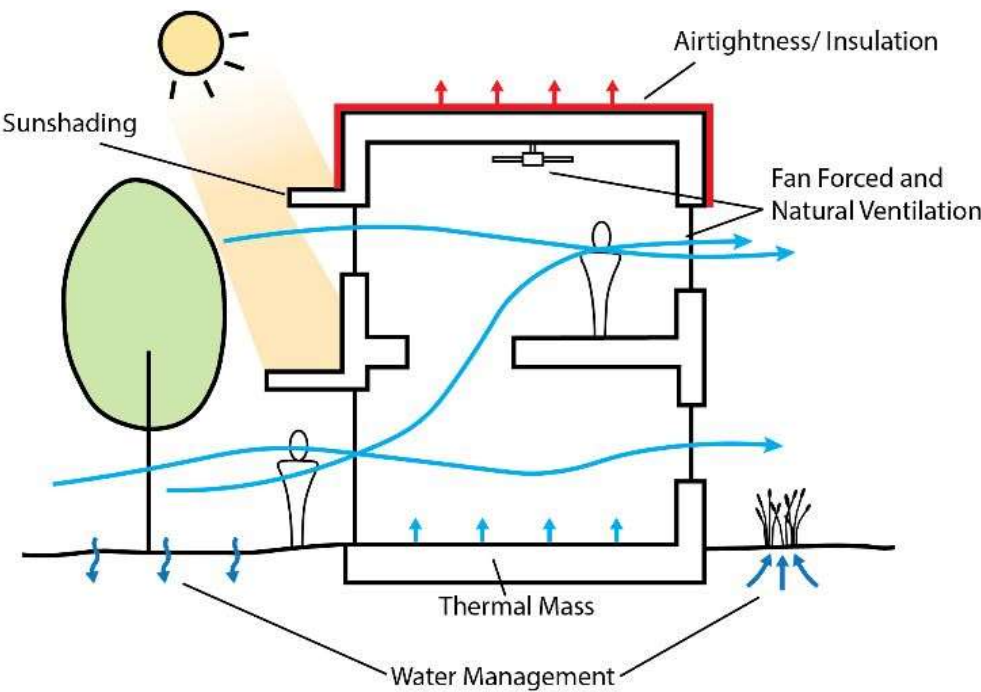
	Average Temps (°F)		Relative Humidity (%)	
	Max	Min	6 AM	3 PM
Jan	40	18	77	50
Feb	46	22	79	50
Mar	58	33	80	51
Apr	69	43	84	52
May	78	53	85	52
June	88	64	86	52
July	93	69	92	61
Aug	90	66	87	49
Sept	82	56	88	50
Oct	70	44	82	42
Nov	56	32	79	42
Dec	43	21	79	51



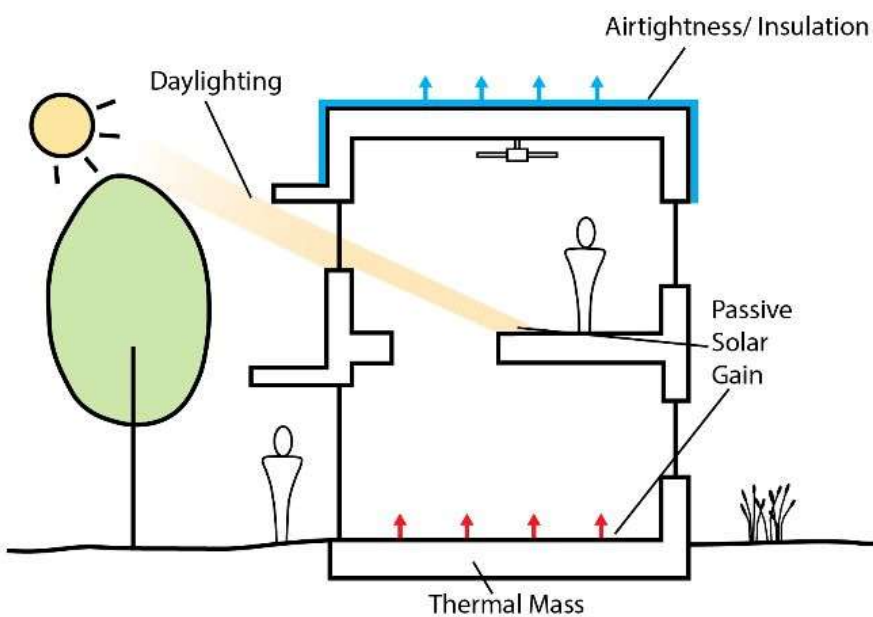
Sunshading Chart



OVERHEATED



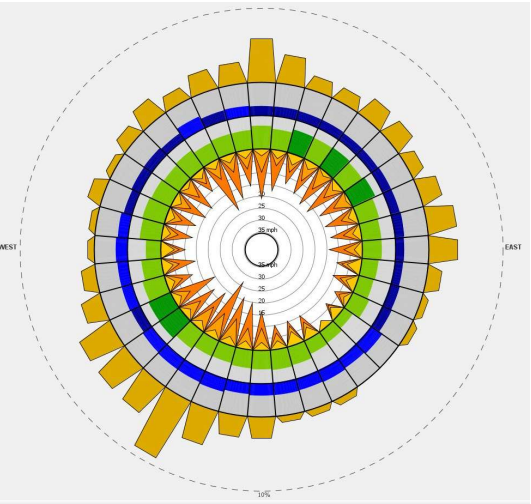
UNDERHEATED



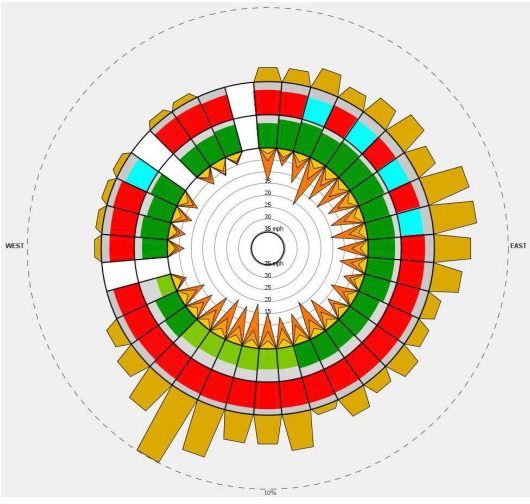
BIOCLIMATIC CHART

PASSIVE STRATEGIES FOR CLIMATE

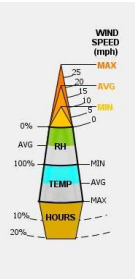
Bioclimatic Analysis



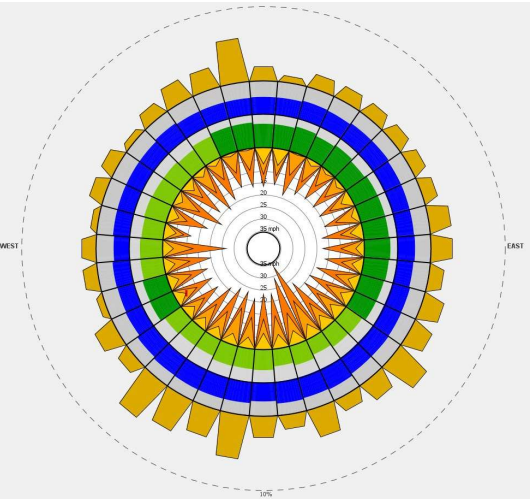
January



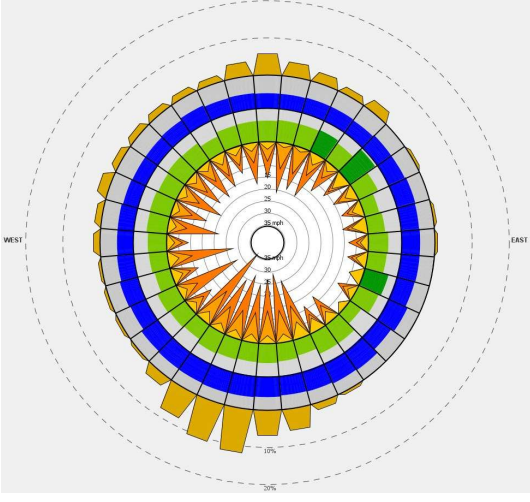
July



TEMPERATURE (Deg. F)
■ < 32
■ 32 - 70
■ 70 - 75
■ 75 - 100
■ > 100
RELATIVE HUMIDITY (%)
■ < 30
■ 30-70
■ > 70

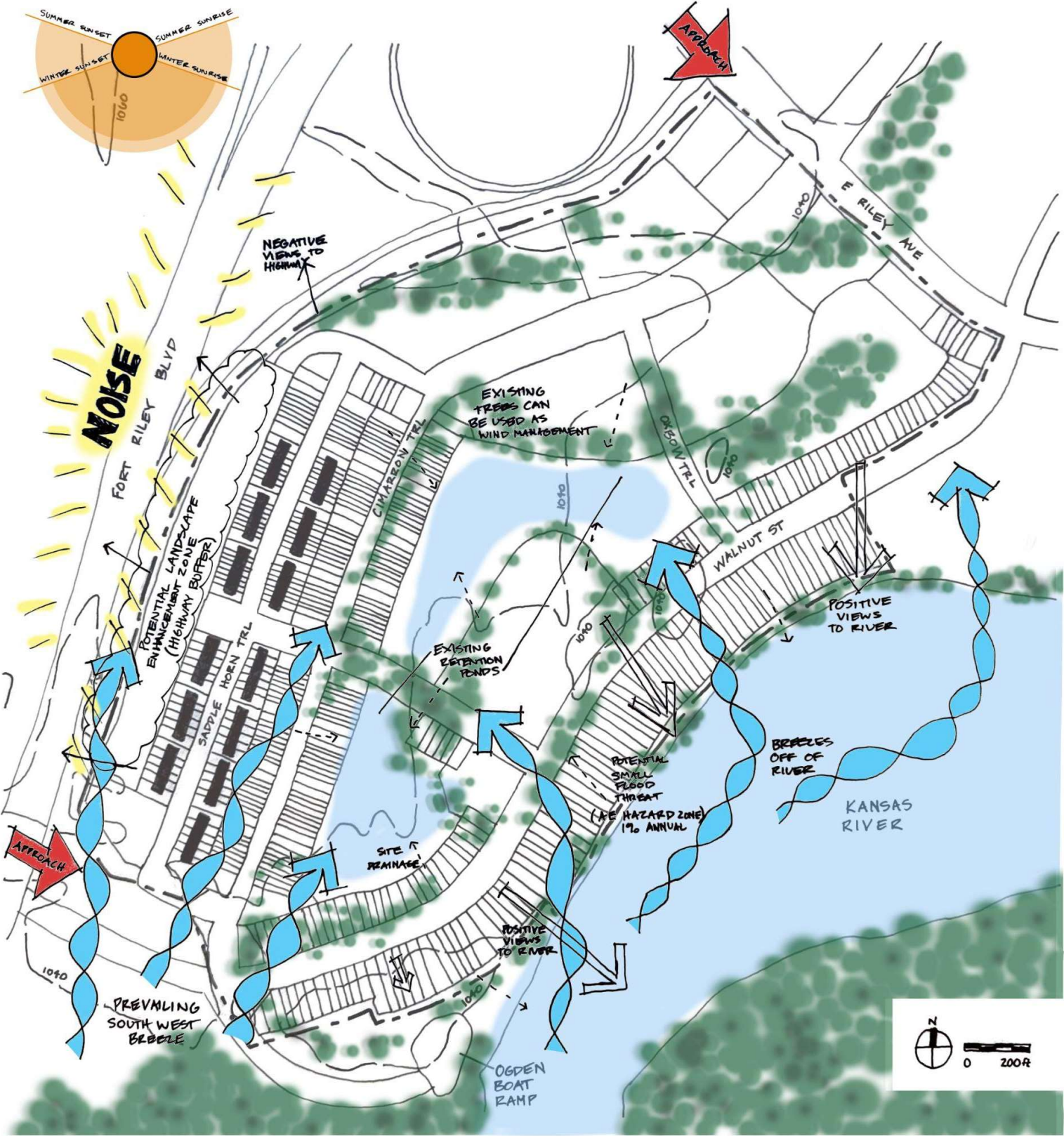


April



October

WIND ROSES



BIOCLIMATIC SITE DIAGRAM

Community Analysis - SWOT

STRENGTHS

- Not in floodplain
- Few obstacles to landscaping
- Replottable parcels
- Easy drainage locations (Ponds, Kansas River)
- Curb appeal from highway
- Multiple day care options
- Community Center / Bus stop

WEAKNESSES

- Current neighborhood development has lost significant value
- Noise insulation to counter (Airport, Highway, Railroad)
- No existing trees for wind/sun control
- Lack of activities for community engagement

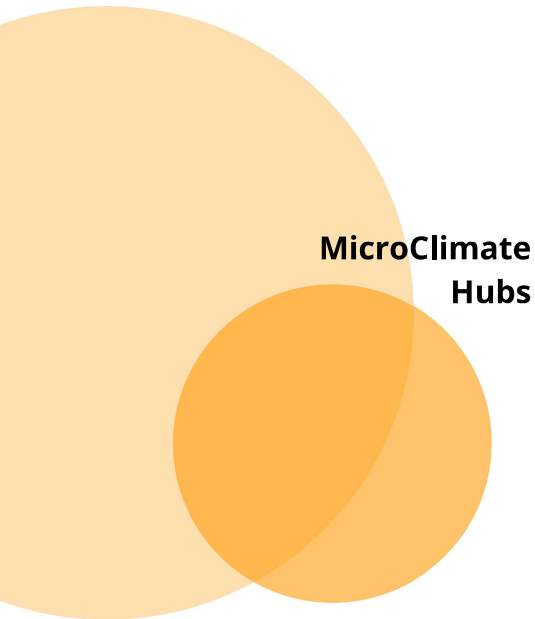
OPPORTUNITIES

- Riverfront View
- Easily accessible to highway
- Amenity of outdoor space
- Walkability / Bikeability
- Mixed use development
- Ample direct gain during winter months
- Bus stop from Ogden to Manhattan
- Edible landscaping

THREATS

- Little connection to rest of Ogden
- No fresh produce
- No common area facilities to respond to on site
- No natural shading for summer months
- Close to floodplain

MicroClimate Strength



MicroClimate Qualities:

- Wind Regulation
- Daylighting Regulation
- Provides Natural Amenity

