



# UniverCity Year

Better • Places • Together

2020-2021

## Developing affordable housing in Door County

Reports from Real Estate 765: Contemporary Topics



UniverCity Alliance  
UNIVERSITY OF WISCONSIN-MADISON





**RE 765**

**Door County Affordable Housing Development Proposal – 50 units on scattered sites in Sister Bay, Ephraim and Liberty Grove**

PROPERTIES

- Three sites for affordable pocket neighborhood/SFHs in northern Door County: Sister Bay, Ephraim and Liberty Grove
- Sister Bay parcel # 1810007312811A7 → nearly 11 undeveloped acres; proposing development of ~4 acres set back from the road; may need to seek a residential zoning designation
- Ephraim parcel # 1210219312831A → nearly 26 acres; proposing development of 4.5 acres along German Rd.
- Liberty Grove parcel # 0180214322821A1 → nearly 16 acres behind a fire station; proposing development of ~5 acres

STRATEGIC PLAN

- Develop a total of 50 three-bedroom affordable rental units that are 1,475 sq ft
- 5 units allocated to 30% CMI, 10 units allocated to 40% CMI, 15 units allocated to 50% CMI and 20 units allocated to 60% CMI residents
- Units include basements and a two-stall garage, solar panels on rooftops to offset utility (electricity) costs
- Intended to appeal to local residents seeking affordable single-family housing options near local attractions

THE PRO FORMA

• Gross Potential Revenue	\$507,941	• Operating Expenses	\$150,000
• Vacancy (6%)	\$28,751	• Proposed Taxes	\$51,152
• Effective Gross Income	\$479,190	• Net Operating Income	\$278,037







# SITE LOCATION - EPHRAIM



20 units







# LINKAGES – FOR EPHRAIM & SISTER BAY



VISION

LOCATION

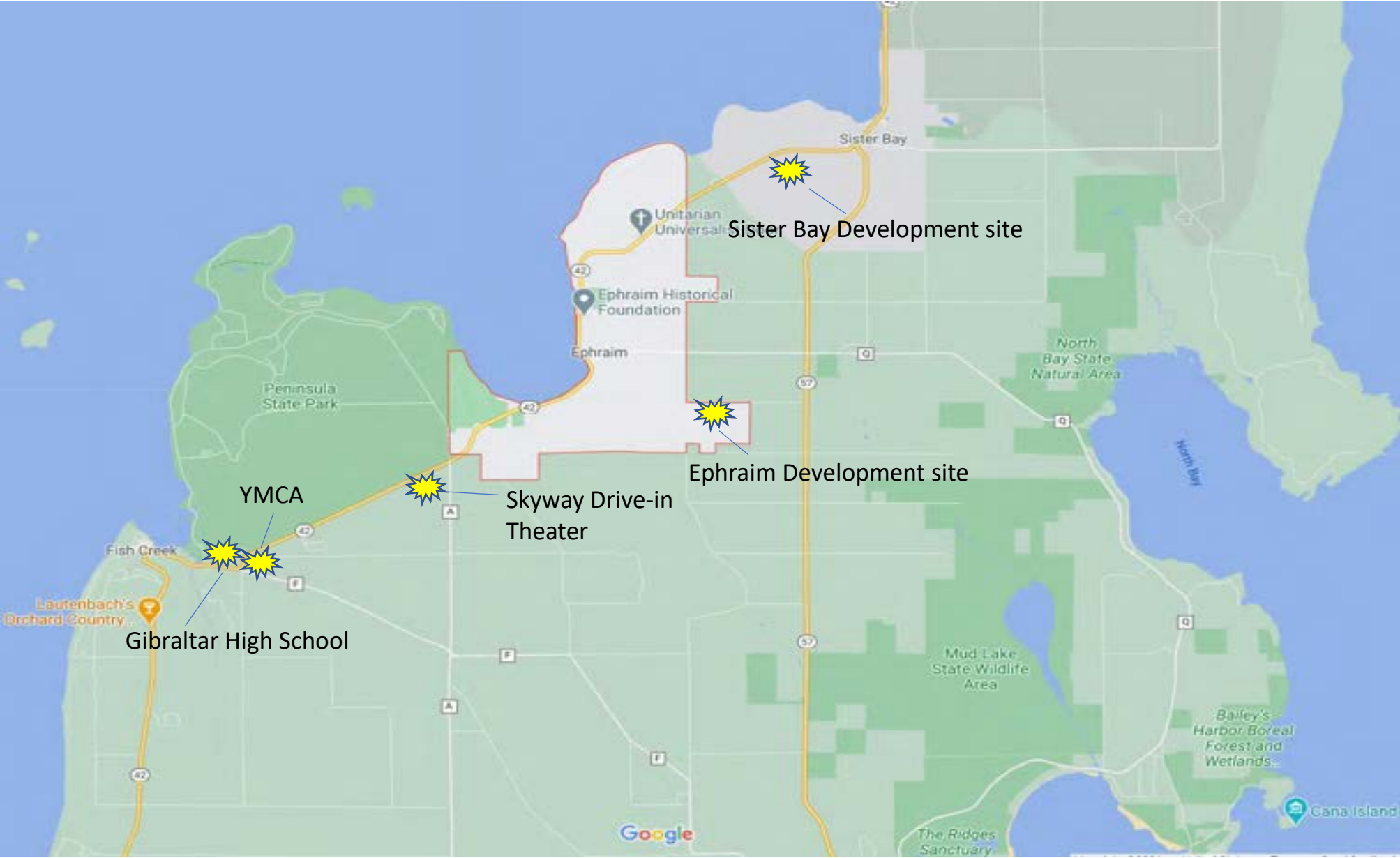
MARKET

DEVELOPMENT

FINANCIALS

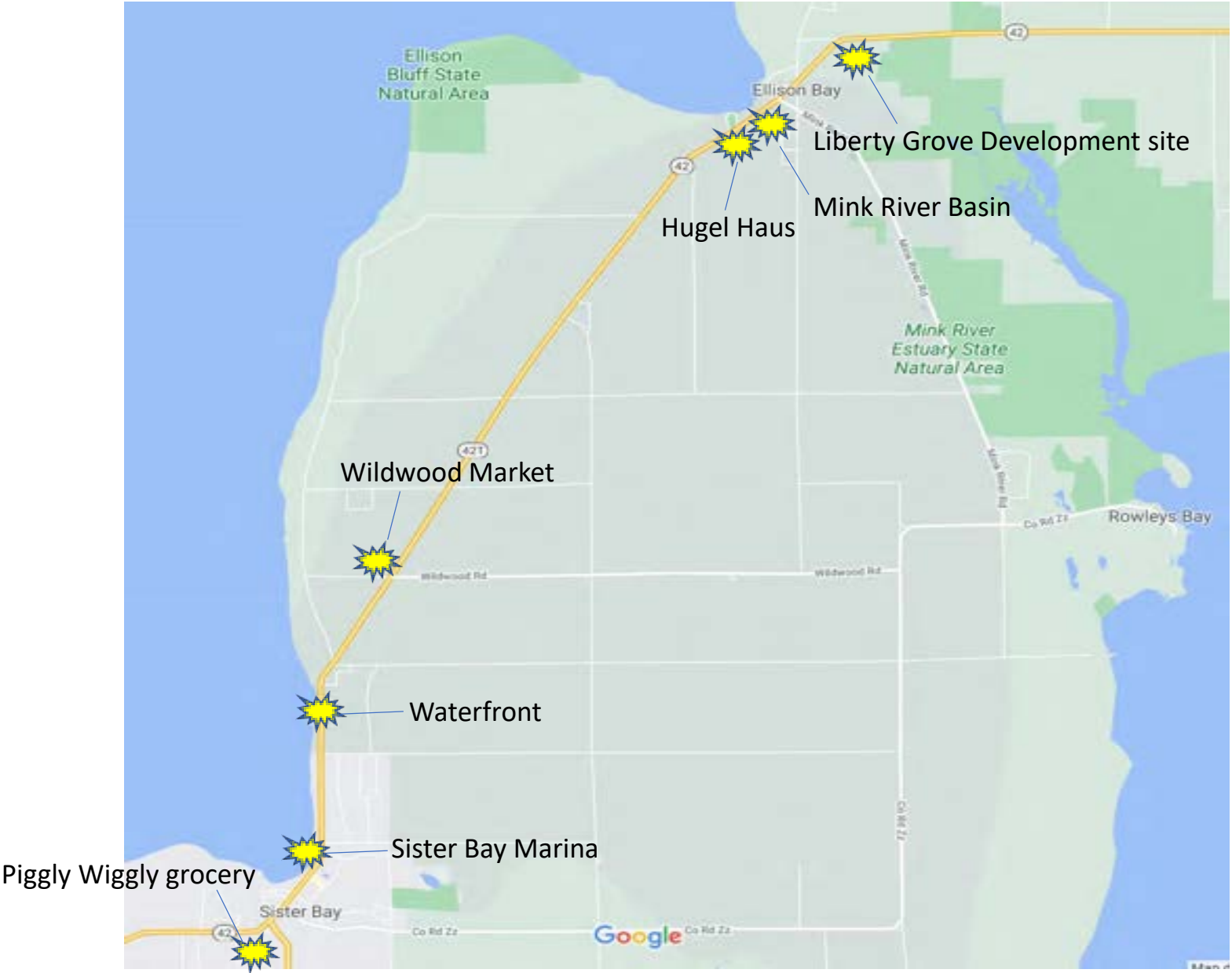
CONCLUSION

# LINKAGES – FOR SISTER BAY & EPHRAIM





# LINKAGES – FOR LIBERTY GROVE/ELLISON BAY



# DEMOGRAPHIC, INCOME & HOUSING DATA FOR SISTER BAY IN 2019

## *Sister Bay, WI Data & Demographics (As of July 1, 2020)*

### POPULATION

Total Population	874 (100%)
Population in Households	814 (93.1%)
Population in Families	555 (63.5%)
Population in Group Quarters <sup>1</sup>	60 ( 6.9%)
Population Density	339
Diversity Index <sup>2</sup>	12

### HOUSING

Total HU (Housing Units)	1,385 (100%)
Owner Occupied HU	312 (22.5%)
Renter Occupied HU	148 (10.7%)
Vacant Housing Units	925 (66.8%)
Median Home Value	\$299,457
Average Home Value	\$385,772
Housing Affordability Index <sup>3</sup>	109

### INCOME

Median Household Income	\$53,153
Average Household Income	\$65,983
% of Income for Mortgage <sup>4</sup>	24%
Per Capita Income	\$34,437
Wealth Index <sup>5</sup>	72

### HOUSEHOLDS

Total Households	460
Average Household Size	1.77
Family Households	232
Average Family Size	2

[Sister Bay, WI Profile: Facts & Data \(hometownlocator.com\)](https://www.hometownlocator.com/wisconsin/sister-bay/)

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# DEMOGRAPHIC, INCOME & HOUSING DATA FOR LIBERTY GROVE/ELLISON BAY IN 2019

## *Ellison Bay, WI Data & Demographics (As of July 1, 2020)*

### POPULATION

Total Population	168 (100%)
Population in Households	168 (100.0%)
Population in Families	136 (81.0%)
Population in Group Quarters <sup>1</sup>	0
Population Density	63
Diversity Index <sup>2</sup>	7

### HOUSING

Total HU (Housing Units)	340 (100%)
Owner Occupied HU	80 (23.5%)
Renter Occupied HU	9 ( 2.6%)
Vacant Housing Units	251 (73.8%)
Median Home Value	\$323,684
Average Home Value	\$386,728
Housing Affordability Index <sup>3</sup>	123

### INCOME

Median Household Income	\$60,901
Average Household Income	\$97,011
% of Income for Mortgage <sup>4</sup>	22%
Per Capita Income	\$46,136
Wealth Index <sup>5</sup>	171

### HOUSEHOLDS

Total Households	89
Average Household Size	1.89
Family Households	60
Average Family Size	2

[Ellison Bay, WI Profile: Facts & Data \(hometownlocator.com\)](https://hometownlocator.com/ellison-bay-wi-profile-facts-data)

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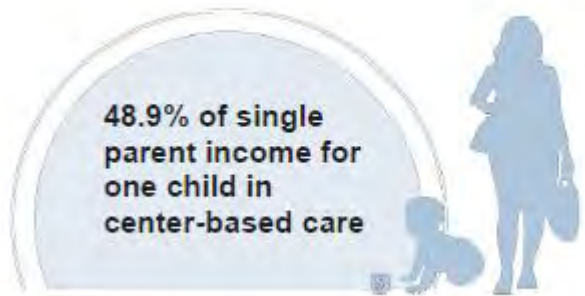
FINANCIALS

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NEED FOR CHILDCARE IN DOOR COUNTY

Child care is a major expense in family budgets, often **exceeding** the cost of **housing, college tuition, transportation, and food.**

Childcare is of particular concern as it’s a burden for lower wage works who may have a lack of control over work schedule or may work nonstandard shifts and hours





## EXISTING CHILDCARE IN DOOR COUNTY

- **13 Total Existing Childcare Centers**

- Mostly concentrated in and around Sturgeon Bay



### 10 “Group” Centers

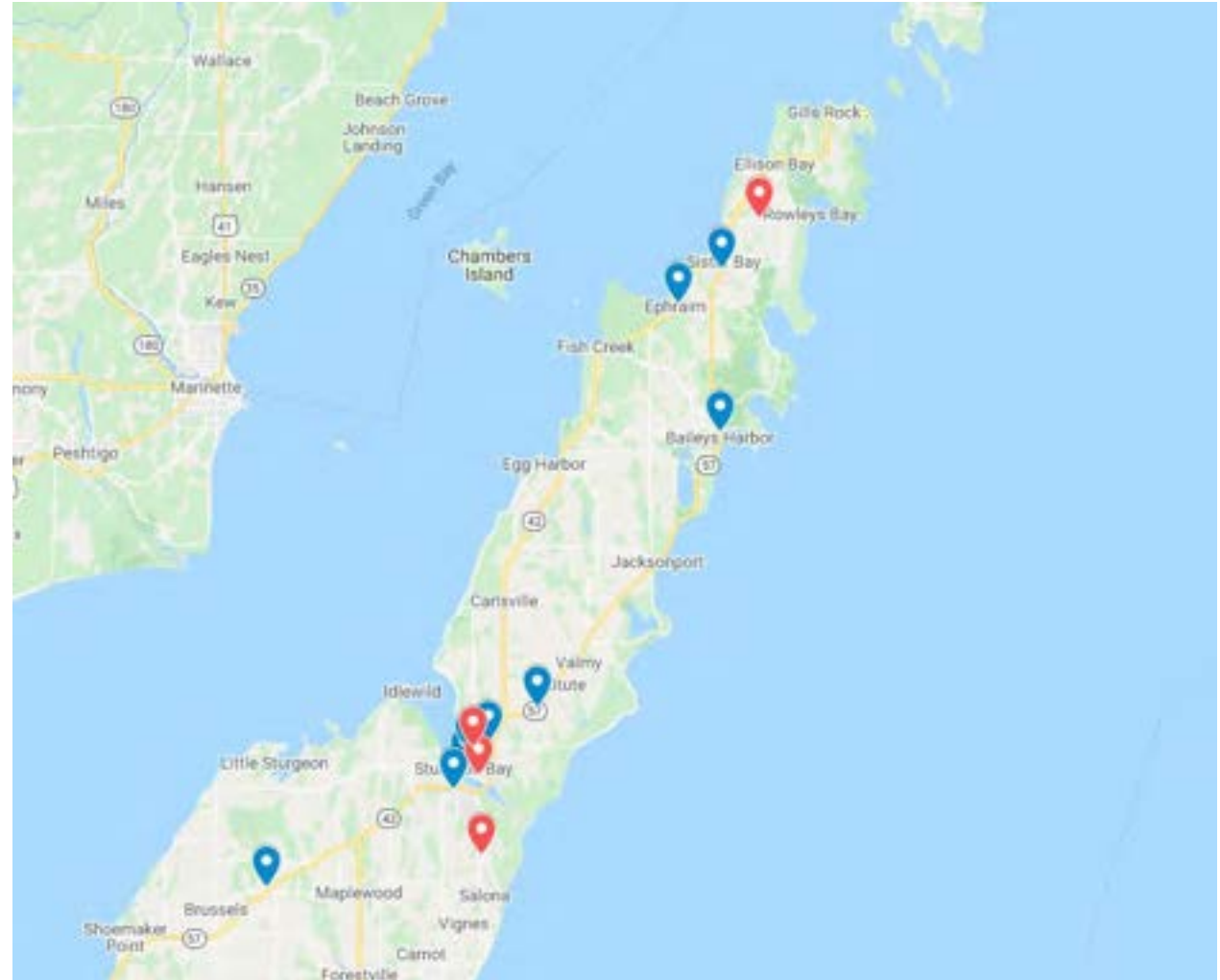
- “Group” Centers are able to host more than 8 children



### 4 “Home” Centers

- “Home” Centers are only able to host up to 8 children

Because Door County is underserved from a childcare standpoint, we anticipate and encourage the opening of 1-2 “home” childcare centers per proposed development site and seek tenants who are willing and able to provide such care to area residents.



## Overview

- Parcel # 1810007312811A7
- 10 Single Family Lots
- All units 1,475 sq ft with a basement and 2-stall attached garage
- Woodland Preservation per Door County GIS

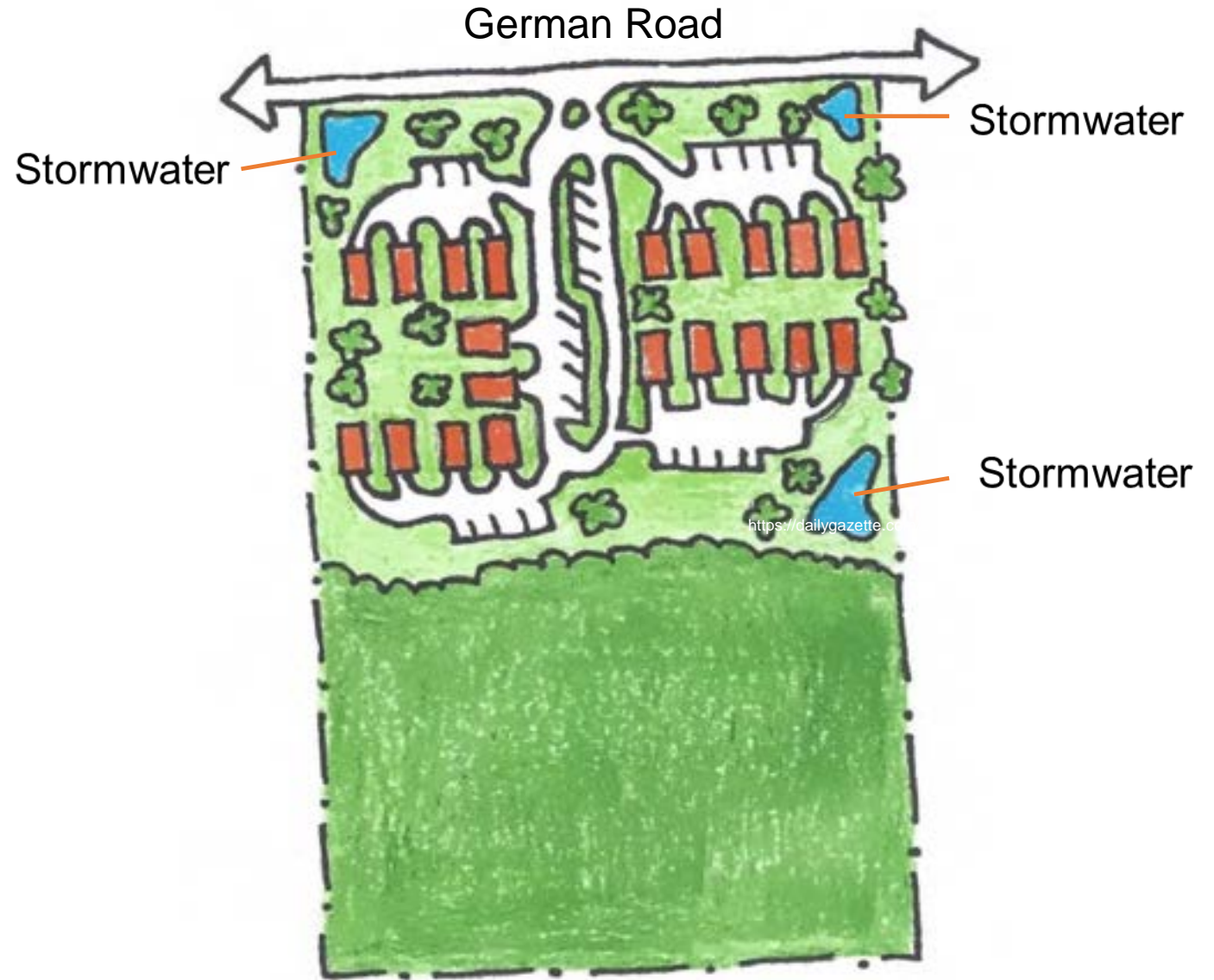


<https://wisconsin.weidner.com/apartments/wi/fitchburg/the-lafayette-0/photo-gallery.aspx>



## Overview

- Parcel # 1210219312831A
- 20 home pocket neighborhood
- All units 1,475 sq ft with a basement and 2-stall attached garage
- Woodland preservation



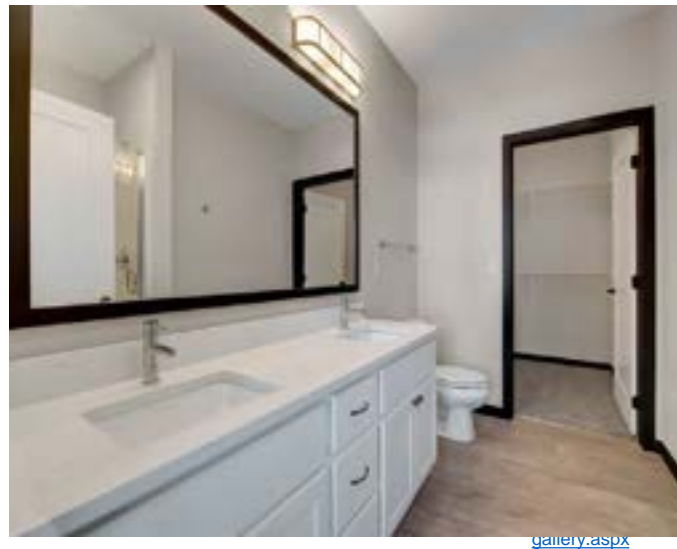
## Overview

- Parcel # 0180214322821A1
- 20 Single Family Lots
- All units 1,475 sq ft with a basement and 2-stall attached garage
- Woodland Preservation





# POCKET NEIGHBORHOOD DESIGN FEATURES



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# SINGLE FAMILY HOME DESIGN & FLOOR PLAN



## Overview

- Single Family Home (approximately 1,475 sf with basement)
- 3-Bedroom Unit
- 2-Car Garage



<https://wisconsin.weidner.com/apartments/wi/fitchburg/the-lafayette-0/photo-gallery.aspx>

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# AFFORDABLE RENTAL HOUSING FINANCIAL ANALYSIS – FROM FRONT DOOR MODEL

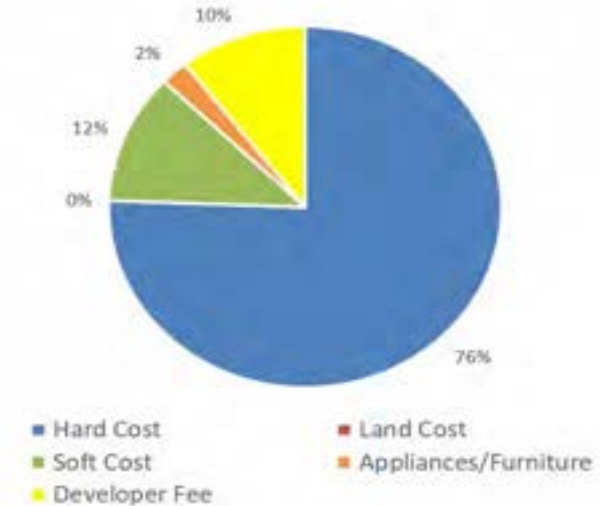
	Amount	% of Total
Hard Cost	\$9,956,250	77.3%
Land Cost	\$1	0.0%
Soft Cost	\$1,538,438	11.9%
Appliances/Furniture	\$300,000	2.3%
Developer Fee	\$1,379,363	10.7%
Total Budget	\$12,874,051	100.0%
Tax Credit Equity	<b>\$9,011,836</b>	
Net Cost	\$3,862,215	

	Per Sq Ft	Percentage
Hard Cost	\$135	
Land Cost	\$1	
Soft Cost		15% of HC
Developer Fee		12% of Construction

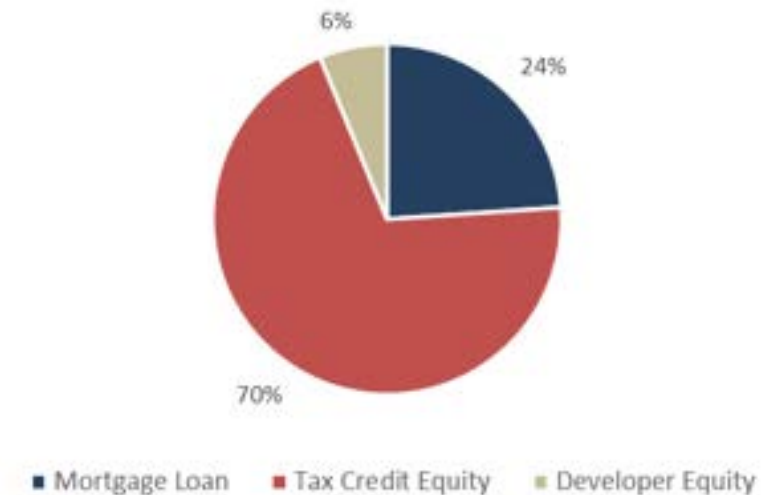
## Income Pro Forma:

Potential Gross Rev	\$507,941
Vacancy (6%)	<b>\$28,751</b>
Effective Gross Rev	\$479,190
Operating Expenses	<b>\$150,000</b>
Property Taxes	<b>\$51,152</b>
Net Operating Income	\$278,037

Uses of Capital



Sources of Capital



# FINANCIAL IMPACT OF SOLAR PANELS – SISTER BAY SITE

## Rooftop Solar Panels

The addition of solar panels can significantly lower the cost of utilities for residents in Door County.

## Single Family Site in Sister Bay with 10 Homes

- DC system size: 50 kW (50,000 kWh)
- Total number of panels installed: 167 (17 per unit)
- Year 1 kW hours of energy generated: 65,477 in this location, according to PVwatts calculator
- Year 1 value of energy savings: \$8,381, or approx. \$838 per home
- Cumulative value of energy savings: \$289,500 over 25-year life
- Other assumptions in model include:
  - \$.128 average electricity cost in the area
  - 14% loss factor
  - South facing panels (Azimuth 180°)



### Solar Financing Highlights:

Net Cost Before Tax Incentives:	\$148,000
Tax Credit Equity:	\$64,220
Debt funding:	\$83,781
Payback period:	9 years
NPV @ 3% discount rate:	\$193,950
25-year IRR:	11.3%



# FINANCIAL IMPACT OF SOLAR PANELS – EPHRAIM SITE

## Rooftop Solar Panels

The addition of solar panels can significantly lower the cost of utilities for residents in Door County.

## Pocket Neighborhood in Ephraim with 20 Homes

- DC system size: 100 kW (100,000 kWh)
- Total number of panels installed: 333 (17 per unit)
- Year 1 kW hours of energy generated: 134,106 in this location, according to PVwatts calculator
- Year 1 value of energy savings: \$17,166, or approx. \$858 per home
- Cumulative value of energy savings: \$593,000 over 25-year life
- Other assumptions in model include:
  - \$.128 average electricity cost in the area
  - 14% loss factor
  - South facing panels (Azimuth 180°)



### Solar Financing Highlights:

Net Cost Before Tax Incentives:	\$298,000
Tax Credit Equity:	\$128,817
Debt funding:	\$169,183
Payback period:	9 years
NPV @ 3% discount rate:	\$397,200
25-year IRR:	11.5%

# FINANCIAL IMPACT OF SOLAR PANELS – LIBERTY GROVE SITE

## Rooftop Solar Panels

The addition of solar panels can significantly lower the cost of utilities for residents in Door County.

## Single Family Site in Liberty Grove with 20 Homes

- DC system size: 100 kW (100,000 kWh)
- Total number of panels installed: 333 (17 per unit)
- Year 1 kW hours of energy generated: 136,729 in this location, according to PVwatts calculator
- Year 1 value of energy savings: \$17,501, or approx. \$875 per home
- Cumulative value of energy savings: \$605,000 over 25-year life
- Other assumptions in model include:
  - \$.128 average electricity cost in the area
  - 14% loss factor
  - South facing panels (Azimuth 180°)



### Solar Financing Highlights:

Net Cost Before Tax Incentives:	\$298,000
Tax Credit Equity:	\$128,817
Debt funding:	\$169,183
Payback period:	9 years
NPV @ 3% discount rate:	\$405,000
25-year IRR:	11.7%



The single-family affordable housing developments highlighted in this presentation are feasible assuming the following:

- \$1 land acquisition cost
- \$135 per sq ft for hard costs – this per sq ft figure may be too low given inflation of materials in the last year
- Soft costs are 15% of hard cost
- Per unit allowance for appliances/furniture of \$6,000
- Tax credit equity of \$9 million
- Developer fee of 12% of construction budget; 8% cash-on-cash return target
- 80% LTV → mortgage loan of ~\$3.1 million at 5.5% interest rate for 30-year term

# THANK YOU



# PENINSULA

RE 765 : AFFORDABLE HOUSING





# Presentation Contents

- Project Overview
- Door County Overview
- Development Sites
- Sister Bay Sites Overview
- Child Care
- Solar
- Financials
- Sample Photos
- Tax Credit Models (WHEDA)
- Feasibility



*Multi-family massing model, Sturgeon Bay*

# Project Overview

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- ❑ Peninsula is a 44-unit, two-site affordable housing project in Door County, Wisconsin
- ❑ Village of Sister Bay: 24 single-family residences
  - ❑ All units are 3-bd, 1,200 sq ft homes with on-site parking
- ❑ City of Sturgeon Bay: 20-unit, three-story apartment building
  - ❑ 4 studios (500 sq ft), 5 1-bd (800 sq ft), 5 2-bd (1,000 sq ft), 6 3-bd (1,350 sq ft)
  - ❑ On-site daycare facility, common space, and parking
- ❑ Both sites will feature roof-top solar panels
- ❑ 11 units each of <60% CMI, <50% CMI, <40% CMI, and <30% CMI



# Door County

## Quick Facts

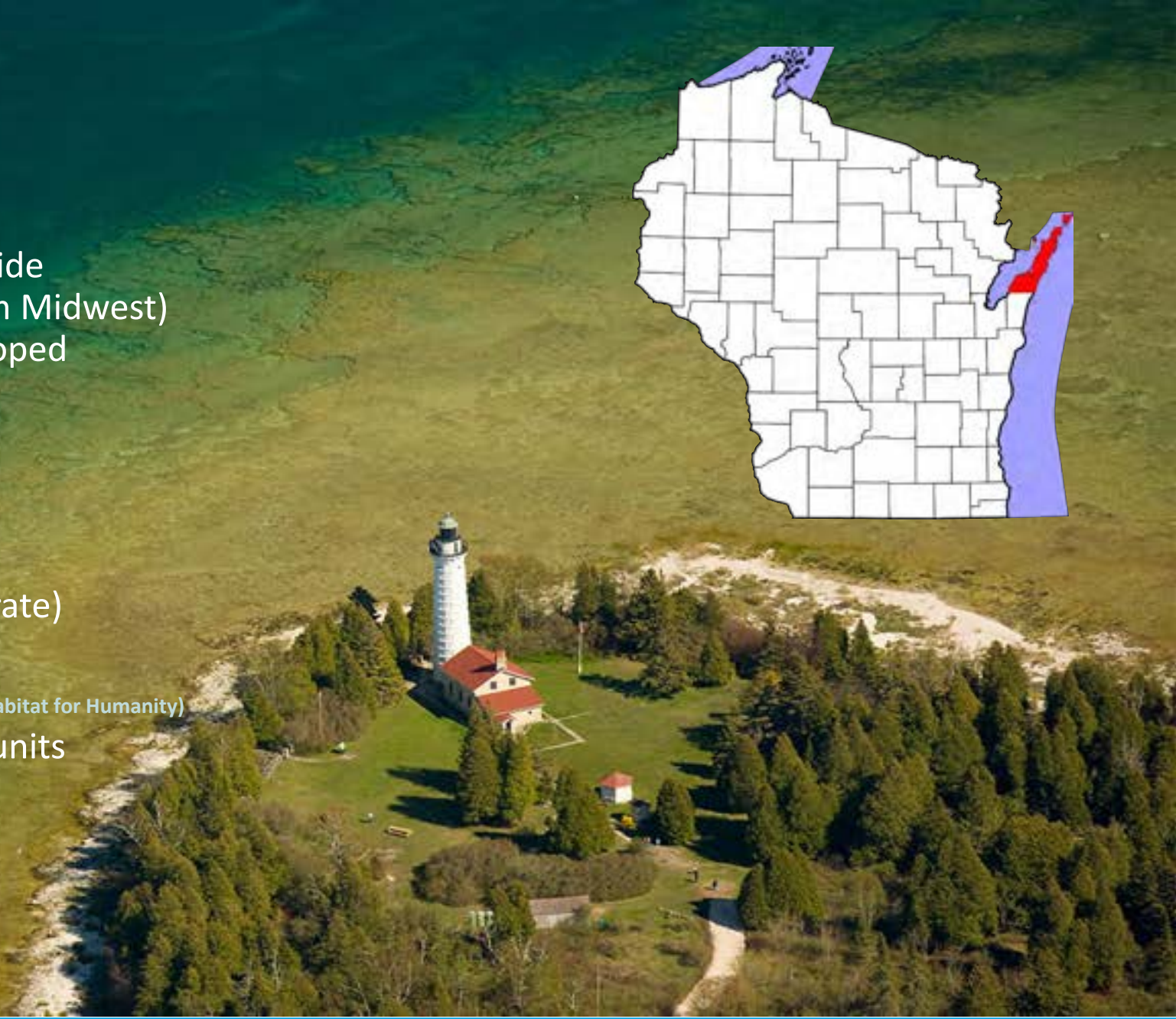
- Approximately 70 miles long and 18 miles wide
- Attracts 2 million tourists per year (90% from Midwest)
- Vast majority of land mass remains undeveloped

## Quick Stats

- 2019 Population : 27,668
- Median Household Income : \$61,560
  - US Median Household Income : \$68,700
- Persons in Poverty (%) : 9.3 (10.4 - national rate)

## DC Affordable Housing Problem (Habitat for Humanity)

- Long standing shortage and poor quality of units
- Outdated building and zoning code
- Lack of multi-family or denser housing types
- Higher construction costs
- Shortage of construction workers



# Development Sites

❑ Total Acreage: 1.38 acres

❑ Parcel IDs

❑ City of Sturgeon Bay (1)

❑ 2814616010101

❑ Village of Sister Bay (13)

❑ 181510008-18

❑ 181510002-3



*Village of Sister Bay  
Development Parcels*



*City of Sturgeon  
Bay Development Parcels*



*City of Sturgeon Bay &  
Village of Sister Bay*



# Development Site Demographics

- ☐ Statistics are taken from a ½ mile radius of the sites
- ☐ Two sites' demographics are very different in terms of amount of children, median age, and income
- ☐ Sturgeon Bay would be very suitable for child care
- ☐ Both sites deemed adequate for affordable housing development

	Sturgeon Bay Site	Sister Bay Site
	1/2 Mile	1/2 Mile
Total Population	1,684	1,142
0-5 years	146	33
6-11 years	116	44
Median Age	36.4	60.7
Avg. Household Size	2.1	1.8
Housing Units	887	1531
Median Rent	\$520	\$586
Rentable Units (#)	\$326	202
Percent of Houses with rent less than \$750 (per unit)	86%	76%
Median Income	\$39,458	\$49,367
Household Income less than \$25,000	205	133

Data from EasiDemographics.com

# Sister Bay Overview

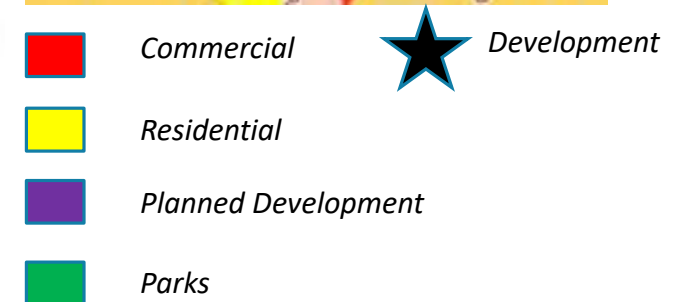
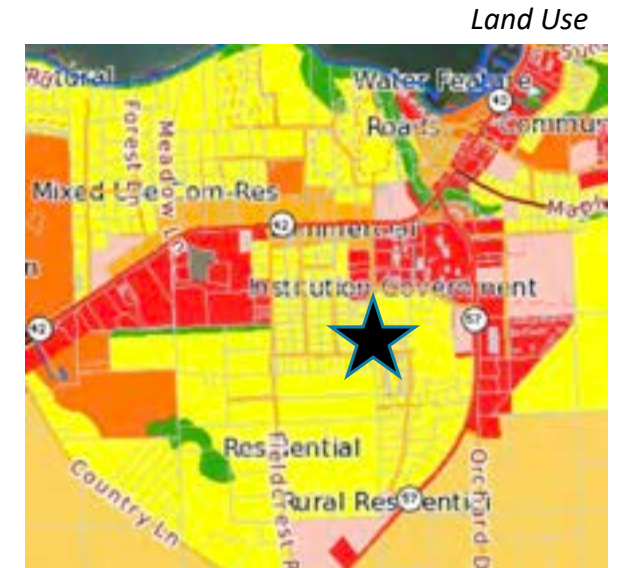
- ❑ Zoning is R-2 Multiple – Family Residence District
  - ❑ Permitted use: Single Family
- ❑ Residential surrounded by commercial
- ❑ Access to two major highways
- ❑ **Proposal:** Single Family Rentals



Egg Harbor Rd (42) & Highway 57



Neighborhood





# Sample Photos: Sister Bay Neighborhood

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*Lot*



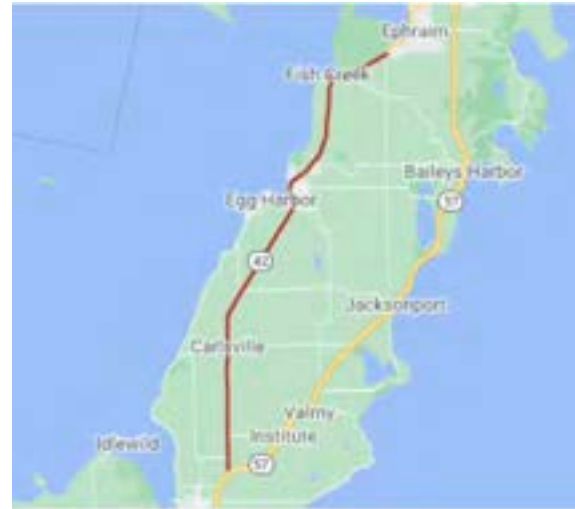
*Exterior*



*Interior*

# Sturgeon Bay Overview

- ❑ Zoning is GENERAL COMMERCIAL (C-1)
  - ❑ Conditional use: Multi-family
- ❑ Located on a commercial corridor
- ❑ Adjacent to existing single-family
- ❑ Pockets of multi-family exist
- ❑ Access to major highway
- ❑ **Proposal:** 20-unit three-story multi-family building with child care on first floor
  - ❑ 35+ parking stalls



Egg Harbor Rd



Zoning



Commercial



Residential



Planned Development



Parks



Development

# Sample Photos: Sturgeon Bay Multi-Family

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*Exterior*



*Childcare*



*Massing  
Model*





# Child Care

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- ❑ Only 330 child care spaces in Door County (the equivalent of one space for every 82 residents); substantial unmet demand for child care in the region
- ❑ Proposed 3,000 sq ft facility located in Sturgeon Bay, the primary employment hub of Door County with the highest concentration of children
- ❑ Current child care options have limited off-peak hours restricting the work availability of many in the hospitality sector in Door County
- ❑ This child care facility will be open off-hours and weekends to serve as an amenity to the community
- ❑ Child care represents an accretive use of space from a cash flow perspective, increasing the return and serving as an additive amenity for the community



# Solar

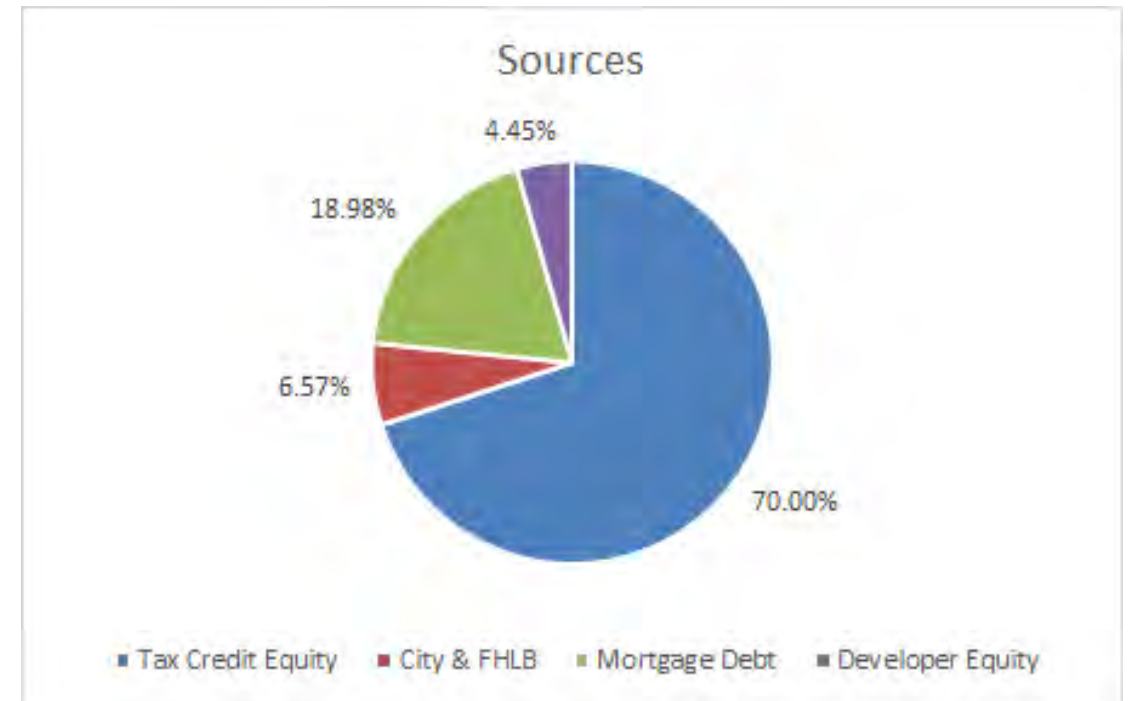
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Locality	Sister Bay	Sturgeon Bay
kWh per unit	5,000	2,000
Panels per unit	17	7
Total panels	408	245
System NPV (unit)	\$17,773	\$16,509
Increase in development value	\$622,050	\$396,223
Total value	\$1,018,274	



# Financials - Sources

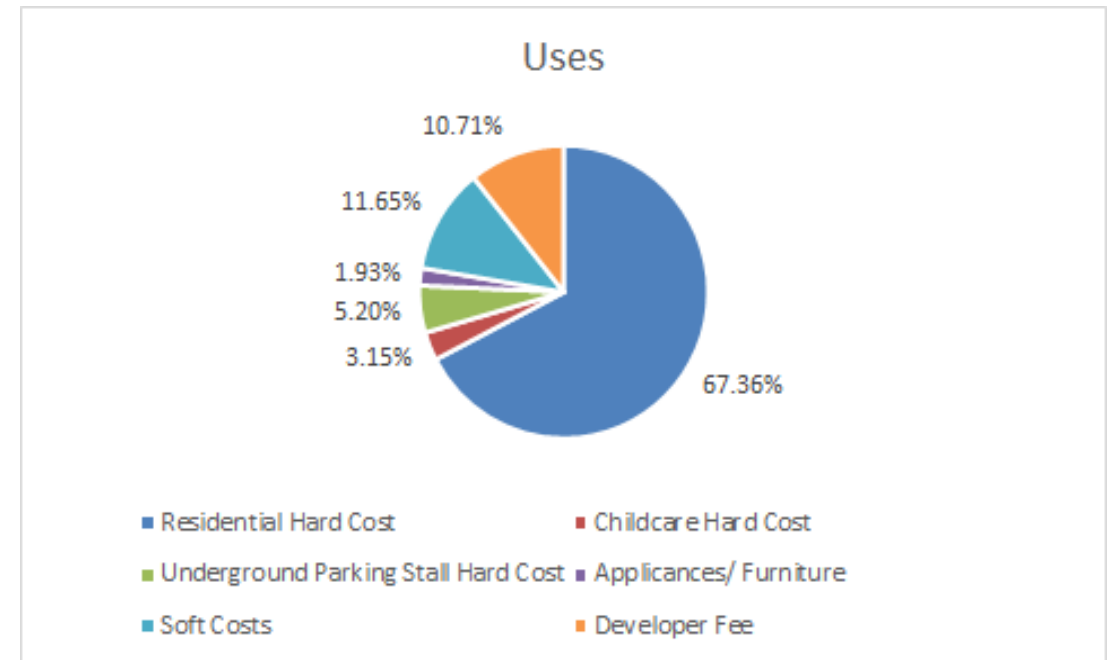
Sources		
Name	Amount	Percentage
Tax Credit Equity	\$7,996,290	70.00%
City and FHLB Contribution	\$750,000	6.57%
Mortgage Debt	\$2,168,355	18.98%
Developer Equity	\$508,627	4.45%
Total Cost	\$11,423,272	





# Financials - Uses

Uses	Amount	Percentage
Residential Hard Cost	\$7,695,000	67.36%
Childcare Hard Cost	\$360,000	3.15%
Underground Parking Stall Hard Cost	\$594,000	5.20%
Appliances/ Furniture	\$220,000	1.93%
Soft Costs	\$1,330,350	11.65%
Developer Fee	\$1,223,922	10.71%
Total	\$11,423,272	100.00%



# Tax Credit Scoring Models (WHEDA)

- WHEDA 2021 Self-Scoring Assessment completed for both sites
- To be eligible for tax credits, sites need a minimum score of 120 (269 pts possible)

Scoring Categories	2021 Points	Sturgeon Bay Site Scoring	Sister Bay Site Scoring
4. Serves Large Families	5	5	5
5. Serves Lowest Income Residents	60	60	60
13. Areas of Economic Opportunity	28	15	16
15. Workforce Housing Communities	12	5	5
<b>Current Total</b>		<b>85</b>	<b>86</b>

- With a diverse development team (12 pts) and the incorporation of sustainable (15 pts) and universal design features (18 pts), **we expect both projects to qualify for WHEDA tax credits**

# Feasibility – Key Takeaways

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- ❑ Substantial unmet need for high-quality affordable housing in the Door County region
- ❑ The Peninsula proposal would be financially viable given the tax credit scoring (assuming the ability to raise or syndicate \$508,627 in equity, the contribution of land for free, and \$750,000 in a municipal or FHLB contribution)
- ❑ The project's solar and child care features would reduce its carbon footprint and operating costs, and allow it to serve as a neighborhood enhancer
- ❑ Underground parking adds \$594,000 in hard costs, if able to rely on above ground parking, that would result in considerable savings for the developments







UniverCity Alliance  
UNIVERSITY OF WISCONSIN-MADISON

# About UniverCity Year



UniverCity Year is a three-phase partnership between UW-Madison and communities in Wisconsin. The concept is simple. The community partner identifies projects that would benefit from UW-Madison expertise. Faculty from across the university incorporate these projects into their courses, and UniverCity Year staff provide administrative support to ensure the collaboration's success. The results are powerful. Partners receive big ideas and feasible recommendations that spark momentum towards a more sustainable, livable, and resilient future. Join us as we create **better places together.**