Summary Memo

To: City and Borough of Juneau and NW Douglas Sub Area Planning Team

From: Shanna Zuspan and Michelle Bowlds, Agnew::Beck Consulting

Date: January 2024 Revised July 2024

Re: **NW Douglas Sub Area Study Housing Need and Residential Financial Feasibility Findings**

As part of the DOWL team under contract to the City and Borough of Juneau (CBJ), Agnew::Beck Consulting supported the planning efforts related to the Northwest Douglas Sub Area Study by estimating housing need in the CBJ. Additionally, Agnew::Beck assessed the financial feasibility of workforce housing using a private sector-based financial pro forma. The housing need estimate and the financial feasibility analysis are intended to support the North and west Douglas Sub Area Study to better inform land use policy and strategies necessary to help the CBJ meet housing need in Juneau and on Douglas Island. This housing need and residential financial feasibility analysis addresses the following research questions.

1) **Housing Need**. What is the overall level of housing need within the CBJ given? Is the lack of affordable housing stifling population growth? What are the factors driving that need?
2) **Housing Affordability**. How much housing is needed within different income groups and what are the affordable housing prices within those income groups?
3) **Financial Feasibility**. Is it financially feasible to build new affordable and attainable[1] rental housing for low-income and middle-income households?
4) **Northwest Douglas Island**. How does a north crossing to Douglas Island and the development of the Northwest Douglas Sub Area Plan improve opportunities for new housing within the CBJ?

To follow are key findings that address these research questions supported by two attachments, including a PowerPoint with detailed housing data and a set of detailed pro forma tables.

Housing Need

Since 2010, the CBJ has seen flat and/or declining population trends, yet there continues to be a need for quality affordable and attainable housing in Juneau to serve a range of incomes and households.

The housing market in Juneau is tight given low vacancy rates. The 2023 Alaska Housing Finance Corporation (AHFC) rental market survey of 1,115 units within the CBJ indicates a rental vacancy rate of four percent. Recent data from the American Community Survey (ACS), indicates a similar rental vacancy rate at 3.6 percent in the CBJ. The ACS reports the ownership vacancy rate in the CBJ has ranged from 1.2 percent in 2020 down to 0.6 percent in 2022. Anything lower than a five percent vacancy rate indicates that housing supply is tight, and demand is outpacing available units. Five percent is considered a "normal" vacancy rate allowing households to move in and out of units due to normal relocation patterns. In Juneau, a lower than 5 percent vacancy rate indicates that meeting future demand for new housing will require additional housing construction; there is no extra supply within the existing housing market to absorb this demand.

[1] Affordable housing often refers to housing that is affordable (no more than 30% of household income) for households making 80 percent of area median income or less. Attainable housing often refers to housing that is affordable for those in the middle-income group or between 80 and 120 percent of area median income. Attainable housing is often also called workforce housing.

There is an immediate need for at least 400 new housing units in Juneau due to overcrowding conditions, despite anticipated declines in population. The Department of Labor is forecasting a decline in CBJ population between 2022 and 2032 yet three percent of households in Juneau are living in overcrowded conditions as defined by the Department of Housing and Urban Development (HUD)[2] Population trends do not tell a complete story of housing need; households often double and triple up in homes if there is inadequate housing at affordable price points. Overcrowding tends to impact households who are lower income or lower middle income who are often forced to live in conditions that are cramped given the lack of affordable options.

There is likely an additional need for new housing that is not documented by secondary data sources but still exists, specifically non-overcrowded households who are living with family or friends, as well as housing necessary to support the workforce. Through primary survey data in several Alaska communities, we find many households are living with other family members or friends but would prefer their own housing unit if affordable options are available. These households may not be technically overcrowded as defined by HUD but are still seeking their own units and their housing need is not documented within the CBJ. Another category that may be missed is housing needed to support the workforce and help fill open job positions in the CBJ. For example, the Southeast Alaska Regional Health Consortium (SEARHC) currently has 106 open positions in Juneau many of which are highly skilled health care jobs, as well as administrative positions and social service opportunities. It is likely that a barrier to filling some of these positions is the lack of available housing at the right price points and quality levels.

Possibility of the United States Coast Guard Ice Breaker in Juneau. Reports of Juneau as the home port for the Aiviq ice breaker could yield additional housing need in the CBJ. Assuming 190 enlisted personnel and 400 dependents arrive with a new ice break, it is possible there will be a need for 240 to 280 additional new housing units.[3] Given the low vacancy rates in Juneau, should the ice breaker materialize the total need for new housing could jump to more than 600 units.

Short term rental market. Despite adding more housing units in recent years, demand for housing has been increasing faster than new housing units are being added to the market. One of the multiple factors that may have contributed to this is the conversion of full-time dwelling units to short term rentals (STR). Since 2010, 616 housing units in Juneau have been used as a STR at some point.[4] While STR conversions may be contributing to the overall housing shortage, it is among multiple factors, including changing demographics and household size, that continue to strain the housing market in Juneau.

Housing Affordability

Housing affordability is a critical element of understanding and planning for housing needs.

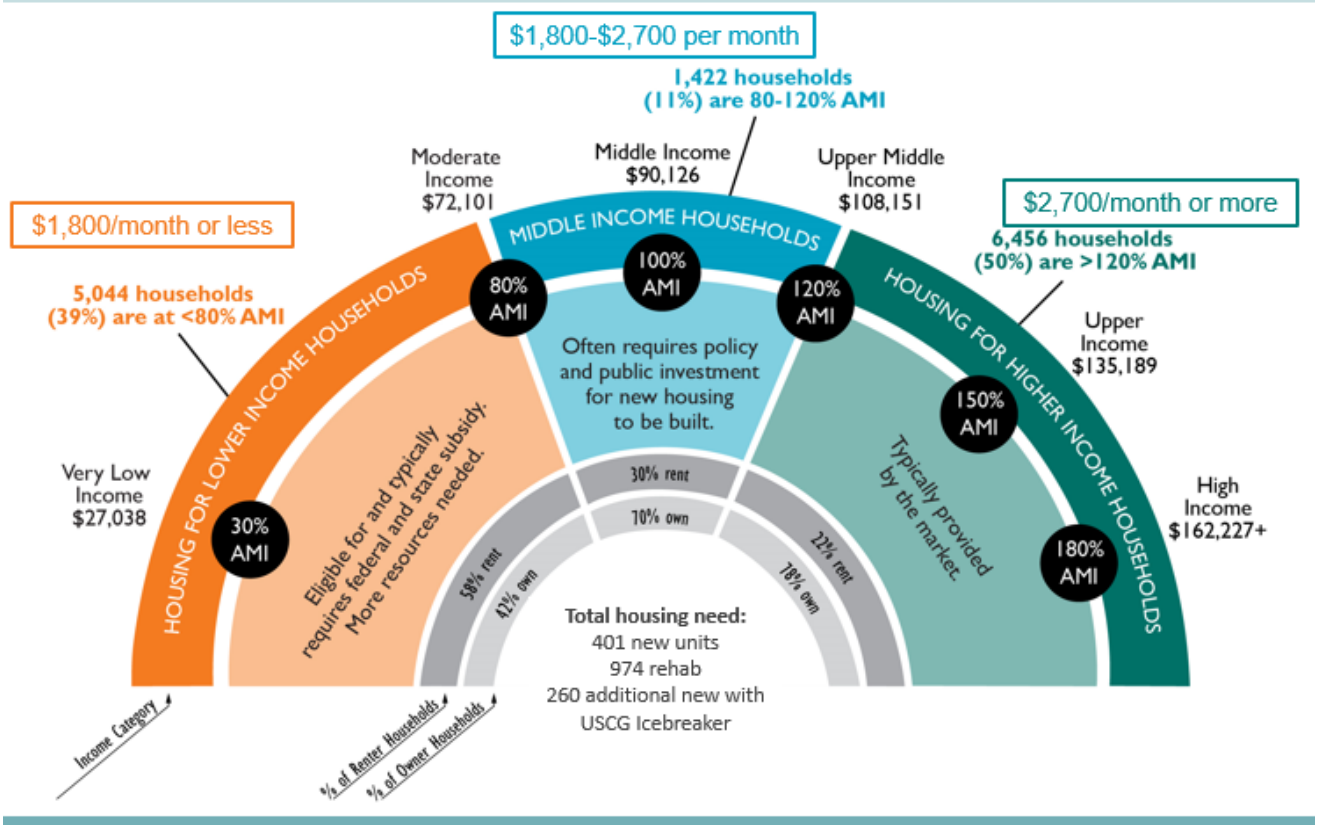
[2]Overcrowded is defined as more than 1.0 occupant per room. Severely overcrowded is defined as more than 1.5 occupants per room. A "room" includes bedrooms, kitchens and living rooms, but not bathrooms, hallways or unfinished basements. For example, a two-bedroom apartment with a living room and a kitchen would be considered overcrowded if there were five or more people living in the apartment. The same apartment would be considered severely overcrowded if six people were living in the apartment.

[3] See slide 23 of Appendix B for assumptions and calculations related to housing that could be attributed to the ice breaker.

[4] JEDC Research Note: Juneau Housing Stock and Short-Term Rentals, August 2022

Income distribution in Juneau reflects a shrinking middle class. Currently, in Juneau, 39 percent of households make incomes less than 80 percent of area median income (or less than $72,000 annually), while another 50 percent of households have incomes that put them at 120 percent of area median income or higher ($108,000 or above). Only 11 percent of Juneau households fall into the middle-income category, making between $72,000 and $108,000 annually or between 80 percent and 120 percent of area median income.

Figure 1 CBJ Housing Bridge Graphic



The majority of new housing need in Juneau is for low- or middle-income households. Roughly 312 new units are needed for those at 80 percent of area median income or lower. We estimate that overcrowded households make up the largest share of quantifiable housing need for new units in Juneau and are likely distributed to low- and middle-income households. The reason for this assumption is that households with higher incomes would typically opt for other housing options as opposed to remaining in overcrowded conditions.

New housing that costs under $2,000 per month is needed in Juneau. Assuming that households pay roughly 30 percent or less of their household income for housing, building new housing with price points at or below $2,000 per month will serve the largest share of the market. Households who spend more than 30 percent of their total income on housing costs are considered to be cost burdened. Spending a larger portion of household income on housing limits the amount of income available for other non-discretionary spending, such as food, child care, clothing and transportation.

Rental and ownership products are both needed. Roughly 55 percent of low-income households and 70 percent of middle-income households in Juneau own their housing, while the remainder of households rent

their homes. Given these trends, we anticipate a need for about 193 ownership units and another 208 rental units in the CBJ, excluding the potential housing need for the ice breaker.

Figure 2 CBJ Housing Need and Affordability by Income Group

Item	Low Income	Middle Income	High Income
Annual Household Income	Less than $72K	Between $72K and $108K	Greater than $108K
Housing Need: New Units [1]	312	88	[2]
Affordable Monthly Housing Costs [2]	$1,800 or less	$1,800-$2,700	More than $2,700
Ownership/Rental	131/181 units or 55%/45%	62/27 units or 70%/30%	Note 1 or 78%/22%

[1] Excludes icebreaker
[2] With no published growth in population, no new housing is quantitatively forecasted for the higher income household group. However, given available and open positions in Juneau, especially in the medical field, it is likely that unmet need for housing at higher income levels is needed in order to fill key vacancies at employers in Juneau.
[2] Assuming housing is 30% of gross income

Rental Housing Financial Feasibility

Given the need for affordable and attainable housing within the CBJ, particularly for low income and middle-income households, we prepared a "floating" pro forma to test the financial feasibility of rental housing priced for the workforce. The term floating is used because this real estate pro forma is not meant to reflect or compare one specific site but is meant to evaluate the extent to which there is a financial feasibility gap to build new rental housing in Juneau, overall. To follow are key findings and assumptions from the pro forma analysis.

Key Findings: Pro Forma Analysis

Rental housing built with affordable rents do not pencil when compared to private developer returns. A $25 million rental project in Juneau that charges rents from $1,400 to $1,900 per month on units that range in size from 400 square feet to 1,000 square feet does not generate enough value to support the cost of construction. Total development costs exceed the capitalized value of net operating income by $11.2 million, a financial feasibility gap of $140,000 per unit remains. This gap assumes all major infrastructure, such as collector roads and water and sewer mainlines are stubbed to the site.

Equity investors in a project such as this would receive 3 percent returns by year 10 on a $15 million investment, which is substantially below mutual fund and stock market returns making the attraction of private capital unlikely. It is important to note that the net operating income of this type of project still produces positive cash flow but is unlikely to generate more than 40 percent of the project costs in debt financing nor attract private equity; social investors may be interested in a project such as this.

Figure 3 "Floating" CBJ Rental Pro Forma

Pro Forma Model Assumptions & Results		
80 Units on 1.5 acres within CBJ	$25 million TDC[1]. Stick built. No steel	7% cap rate [2]
33 units per acre density	$368/SF TDC & $236/SF vertical construction	7.5% perm loan interest rate
Surface parking 1 space per unit	$6/land square foot land costs	30-year term
Assumes all major infrastructure is stubbed to the site and includes a $3.00 per land SF budget for site work		
A project "pencils" if the TDC is at least equal to the capitalized value of the net operating income using a 7% cap rate. The feasibility gap is the difference between the capitalized value and the TDC.		

Unit Type	Number	Size	Target Affordable Rent [3]	Rent Required to "Pencil" with No Incentives	Rent Required to "Pencil" with 12-Yr Property Tax Incentives	Rent Required to "Pencil" With Current 12-Yr Property Tax Incentives, Land Write 100% Down & $50K/unit housing incentive
Studios	8 units	400 SF/unit	$1,400/mth	$2,300/mth	$2,100/mth	$1,680/mth
1-Bedrms	32 units	600 SF/unit	$1,600/mth	$2,600/mth	$2,300/mth	$1,848/mth
2-Bedrms	32 units	800 SF/unit	$1,800/mth	$2,2900/mth	$2,600/mth	$2,100/mth
3-bdrms	8 units	1,000 SF/unit	$1,900/mth	$3,100/mth	$2,800/mth	$2,268/mth
Feasibility Gap No Incentives			$140,000 gap / unit			
Feasibility Gap After Use of 12 Year Property Tax Incentive			$91,000 gap / unit			
Feasibility Gap After Use of 12 Year Property Tax Incentive & 100% Land Write Down			$83,000 gap / unit			
Feasibility Gap After Use of 12 Year Property Tax Incentive & 100% Land Write Down, plus existing $50,000 per unit Housing Incentive			$33,000 gap / unit			

[1] TDC = Total development Costs
[2] A cap rate reflects the market for housing and the level of risk. Cap rates in Lower 48 communities for rental housing are often at 4 or 5%. Cap rates in Alaska are often in the 7 to 9 percent range due to the risk associated with the high cost of construction relative to rents. The lower the cap rate, the more capitalized value is derived in the pro forma.
[3] Affordable rent is targeted to those looking for workforce housing and are likely between 80 and 120 percent of Area Median Income. Rents less than $2,000 per month are targets for the pro forma to ensure housing is affordable to highest level of need in Juneau.

Juneau's High Density Property Tax Incentive (12 years) helps but does not fully fund the gap. Juneau offers a 12-year property tax incentive[5] within the urban service area (which does not include NW Douglas at this time). This tax incentive reduces the financial gap by 35 percent resulting in a gap of $91,000 per unit. The 12-year property tax incentive prohibits housing units receiving the incentive to be used as short-term rentals. One developer interview indicates that they may forgo the property tax incentive to allow for the use of short-term rentals to help cross subsidize the permanent housing portion of their project.

[5] CBJ Code 69.10.023. Property tax incentives for economic development property states that a high-density residential exemption of 12 years is allowed for at least four new residential units on one lot with densities that meet or exceed 75 percent of the maximum density for the lot with no ability to use the housing as short-term rentals during the property tax abatement period. Property must be within the urban service area. There is also a downtown multifamily tax incentive with similar requirements but no density threshold.

Land write downs help close the gap. A sampling of vacant land in the core of Juneau and interviews with developers indicated that assuming $6 per land square foot for a "floating" real estate pro forma is appropriate. Land values can vary dramatically depending on zoning, site remediation, site conditions, slope and access to infrastructure. This pro forma assumes all major infrastructure is stubbed to the site and no collector or regional serving roads must be constructed. A small $3 per land square foot budget (~$350,000) is allocated for site work. If this hypothetical project were built on land that could be provided at no cost, the financial gap would close by another six percent dropping the feasibility gap to $83,000 per unit.

Juneau's Affordable Housing Fund[6] incentive improves feasibility even more. The CBJ currently offers a $50,000 per unit housing incentive to create more housing for those at or below 120 percent of area median income. When this incentive is layered into the pro forma, the gap comes down to $33,000 per unit at rents lower than $2,000 per month. The housing incentive is offered as a grant to non-profits, Tribal governments and housing authorities who target households under 80% of area median income. Additionally, zero or low-interest loans are available for private developers targeting the under 120 percent of area median income household in return for at least 20% of the units being offered to households at 80% of area median income or lower. Projects can be located anywhere in the CBJ and can be for rental or ownership product.

What does it take for the project to pencil? The combination of infrastructure provided to the site, property tax incentives, a land write down, and the current Juneau affordable housing fund $50,000 per unit housing incentive moves the feasibility gap closer to being solved. With only a remaining $33,000 per unit gap, rents could increase slightly and/or a slightly higher housing incentive could easily close the gap. This pro forma estimates that an $80,000 per unit incentive combined with a 12 year property tax incentive, a land write down and publicly funded infrastructure could allow project to pencil with rents less than $2,000 per month. Additionally, the use of short-term rentals may counteract the financial feasibility limitations by improving financial performance.

Implications for Northwest Douglas Island Planning

What do these findings suggest for planning Northwest Douglas Island? We know housing needs continue in the CBJ despite flat or declining population trends and housing that costs less than $2,000 per month is most in need. The CBJ has already begun to implement incentives to improve housing feasibility. NW Douglas offers the following opportunities.

- Larger tracts of land that can result in improved site efficiencies, potentially reducing construction costs. More importantly,
- Larger tracts of land owned by the CBJ that can be put out to market at low or no cost in return for constructing housing that is affordable to low income and middle-income households, assuming all major infrastructure is at least partially, if not fully, funded by public funds, which could include federal dollars.

A new north crossing to Douglas Island will not automatically result in new affordable rental housing throughout NW Douglas. However, a north crossing will help open up more options for housing that is affordable and attainable for lower income and middle-income households, especially if infrastructure is provided and incentives, such as property tax abatements and land write downs are offered in return for rents that are affordable.

[6] More information is here CDD – Services – Grants – Affordable Housing Fund – City and Borough of Juneau

Appendix A

Detailed Pro Forma Tables
"Floating" Rental Pro Forma within City and Borough of Juneau
Prepared January 2024
Agnew::Beck Consulting

Table A-1 Total Development Costs	**Rental "Floating" Pro Forma in the City and Boro**		
Number of Units	80		
Gross Building Sqft	70,000		
Land Sqft	107,158		
Land Value	643,680		
Parking Stalls	80	1.00 per unit	
Land + Building Acquisition			
Land Purchase	$643,680	per land sqft	$6
Existing Building Purchase	$0	Imputed	$0
Environmental Remediation	$0.00	per land sqft	$0
Subtotal			$6
Hard Costs			
Demolition	$0	Imputed	$0
Site Work	$3.00	per land sqft	$321,473
Landscaping/Clearing/Irrigation	$0.00	per land sqft	$0
Off Sites	$0	Imputed	$0
Utility/Timber Cruiser/Fire Protection	$45	per sqft	$3,150,000
Vertical Construction	$236	per sqft	$16,520,000
Furniture, Fixtures	$0	per sqft	$0
Structured Parking	$0	per stall	$0
Surface Parking	$0	per stall	$0
Construction Contingency	10%	of hard costs	$1,999,147
Subtotal			$21,990,620
Soft Costs			
Permit Fees + Special Inspections + Material Te	$7.00	per sqft	$490,000
Entitlement (Platting + Rezoning)	$45,000	Imputed	$45,000
Architecture & Engineering	8.00%	of hard costs	$1,599,318
Legal & Other Fees	$25,000	Imputed	$25,000
Appraisal & Title	$15,000	Imputed	$15,000
Marketing + Environmental	$15,000	Imputed	$15,000
Taxes during Construction	$25,000	estimate	$25,000
Insurance during Construction	$20,000	estimate	$20,000
Total Soft Costs			$2,234,318
Total Development Cost before Interest and Operating Reserve			**$24,224,944**
Estimate of Construction Interest			
Construction Loan	$16,492,965		
Construction Interest	8.50%		
Construction Period (months)	12		
Average Draw	65.00%		
Estimated Construction Loan Interest			$911,236
Gross Potential Rent (monthly)	$135,300		
Lease-Up Period (months until stabilization)	18.0		
Average Occupancy during Lease-Up	50%		
Estimated Rent during Lease-Up		$1,217,700	
Estimated Op. Expenses during Lease-Up		$803,394	
NOI during Lease-Up		$414,306	
Lease Up			$0
Total Project Costs			**$ 25,136,180**

Table A-2 Net Operating Income: No Property Tax Incentive

	Factor		Annual Revenue/Cost
Revenue			
Gross Potential Revenue			$1,623,600
Less: Vacancy	7.00%		*($113,652)*
Less: Bad Debt	0.50%		*($8,118)*
Effective Gross Revenue			**$1,501,830**
Expenses			
Professional Property Management	8.00%	of Effective Gross Revenue	$120,146
Annual Routine Maintenance	$1,000	per unit	$80,000
Real Estate Taxes on New Construction	10.56 mill rate	of estimated total project va	$204,652
Real Estate Taxes on Land	10.56 mill rate	of land value	$6,797
Insurance	$50	per unit	$4,000
Utilities	$1,200	per unit	$96,000
Replacement Reserve	$300	per unit	$24,000
Total Expenses			**$535,596**
per unit expenses			*$6,695*
Net Operating Income			**$966,234**

Table A-3 Debt Sizing: No Incentives	
Pro Forma NOI	$966,234
Capitalization Rate	7.00%
Value of Income Property Only (NOI / Cap Rat	$13,803,344
Loan Terms	
Interest Rate	7.50%
Amortization (years)	30
Debt Based on Loan to Value (LTV)	
Maximum LTV Percentage	75.00%
Maximum Loan Based on LTV for Income Prop	$10,352,508
Using Debt Service Coverage Ratio (DSCR)	
Monthly Net Operating Income	80,520
Maximum Debt Service Coverage Ratio	1.25
Maximum Monthly Payment (NOI/DSCR/12)	$64,416
Maximum Loan Based on DSCR for Income Pr	$9,212,567
Maximum Loan (Lesser of LTV or DSCR Result)	
Maximum Loan for Income Property[c]	$9,212,567
Yearly Debt Service	($780,039)
DSCR	1.24
Patient Capital	
Loan Amount	$0
Interest Rate	1.50%
Term	30
Yearly Debt Service	$0
Max Debt Service	($780,039)

Table A-4 Return Ratios: No Incentives	
Net Operating Income (NOI)	$966,234
Total Development Cost	$25,136,180
Return on Cost: Overall Cap Rate (NOI/Total Cost after Subsidies)	**3.8%**
Net Operating Income	$966,234
Annual Debt Service 1st Mortgage	$780,039
Cash Throw-Off (Before Tax Cash Flow: BTCF)	$186,195
Cash-on-Cash Return (BTCF/Equity)	**1.2%**
Annual Debt Service Patient Capital	$0
Total Development Cost	$25,136,180
Permanent Mortgage	$9,212,567
Patient Capital	$0
Equity	$15,923,613

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Our Approach

1: Your goals for the project + what you want to see as a result

2: DATA
Combine available secondary data + local data to understand demographics, economic forecasts, and housing needs

3: COLLABORATE
Work with the City and Borough of Juneau to check data findings, update findings and tailor the information to better suit the needs of your community

4: SHARE FINDINGS
Combine and present findings

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Secondary Data

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Secondary Data: What we look at

- Population Estimates + Forecasts
- Housing + Household Characteristics
- Housing Need Forecast
- Local Market Data

Gives us a baseline understanding of current population, housing market, and future housing needs.

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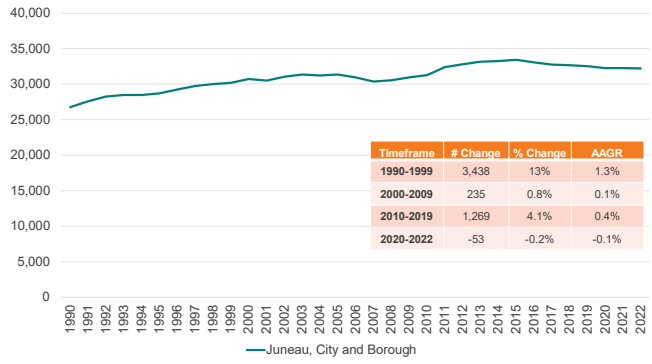
Historic Population Trends 1990-2022



Timeframe	# Change	% Change	AAGR
1990-1999	3,438	13%	1.3%
2000-2009	235	0.8%	0.1%
2010-2019	1,269	4.1%	0.4%
2020-2022	-53	-0.2%	-0.1%

Source: Alaska Department of Labor and Workforce Development, Population Estimates

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Population Projections

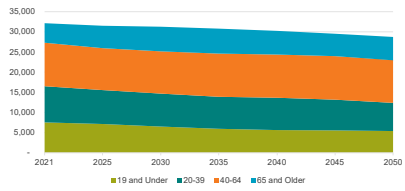
Alaska Department of Labor Population Projections 2021-2050

	Alaska (Statewide)	Southeast Region	Juneau City and Borough
2021-2025	0.2%	-0.5%	-0.5%
2025-2030	0.3%	-0.3%	-0.2%
2030-2035	0.2%	-0.4%	-0.3%
2035-2040	0.1%	-0.5%	-0.4%
2040-2045	0.0%	-0.6%	-0.5%
2045-2050	0.0%	-0.6%	-0.6%

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section

Historical Growth Rates:
- 20 Year Average Annual Growth Rate: 0.2%
- 10 Year Average Annual Growth Rate: -0.2%
- 5 Year Average Annual Growth Rate: -0.3%

Population Projections by Age



Changing Demographics:
- The population over the age of 65 years is expected to increase at a higher rate than the total population
- The population over 65 is forecasted to make up 20 percent of Juneau's total population by 2050

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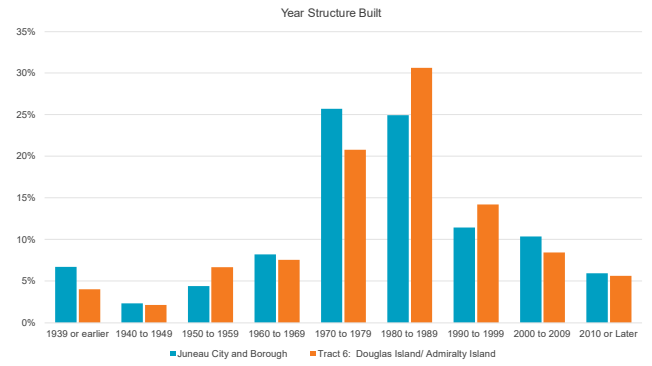
Age of Housing

Roughly 22% of Juneau's housing stock was built over 50 years ago



Source: 2021 ACS 5-Year Estimates, Selected Housing Characteristics (Table DP04)

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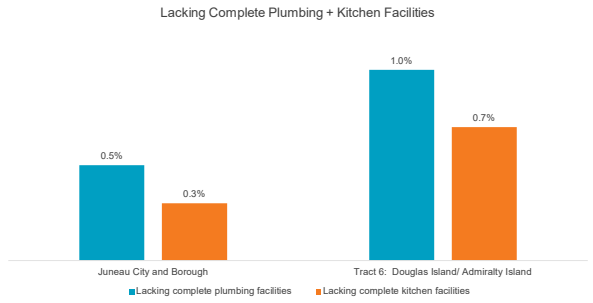
Complete Plumbing and Kitchen Facilities

Most of Juneau's housing stock has complete plumbing + kitchens



Source: 2021 ACS 5-Year Estimates, Selected Housing Characteristics (Table DP04)

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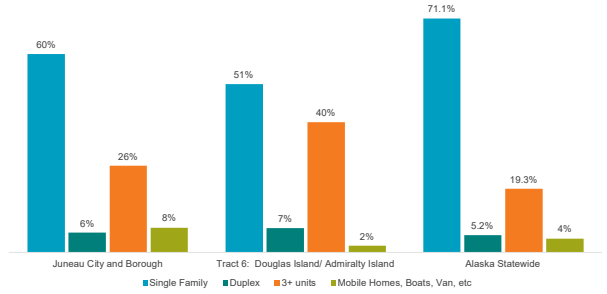
Units In Structure

The majority of housing units in Juneau are single family homes



Source: 2021 ACS 5-Year Estimates, Selected Housing Characteristics (Table DP04)

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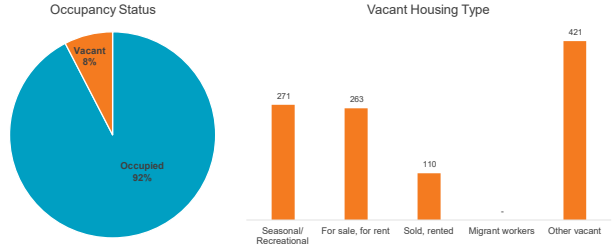
Occupancy Status

Juneau has relatively low vacancy and most vacant units fall under the "other vacant" category



Source: 2021 ACS 5-Year Estimates, Vacancy Status (Table B25004) for the City and Borough of Juneau.

Units for Seasonal, Recreational, or Occasional Use: These are vacant units used or intended for use only in certain seasons or for weekends or other occasional use throughout the year. Seasonal units include those used for summer or winter sports or recreation, such as beach cottages and hunting cabins. Seasonal units also may include quarters for such workers as herders and loggers. Interval ownership units, sometimes called shared-ownership or timesharing condominiums, also are included here.

Other Vacant: If a vacant unit does not fall into any of the categories specified above, it is classified as "Other vacant." For example, this category includes foreclosure, personal/family reasons, legal proceedings, preparing to rent/sell, held for storage of household furniture, currently being repaired/renovated, specific use housing (military, employee/corporate housing, transient quarters, units held by a church, student housing, model home/apartment, extended absence, abandoned/possibly to be demolished/possibly condemned, other)

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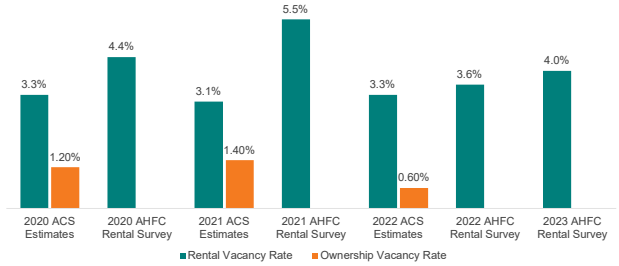
Vacancy Rates

The ownership market in Juneau is very tight. Healthy vacancy rates closer to 5% indicate that there are enough properties to meet demand but not an oversupply.

Homeowner Vacancy Rate: 0.6% to1.4% **Rental Vacancy Rate:** 3.1% to 5.5%

Ranges reflect different sources: AHFC Rental Survey (2020-2023) and ACS Estimates (2020-2022).
Vacancy rates reflect only vacant homes for sale or for rent as a percentage of overall housing stock.



Source: ACS 5-Year Estimates (2020-2022), Selected Housing Characteristics (Table DP04); AHFC Renal Market Survey, City and Borough of Juneau (2020-2023)

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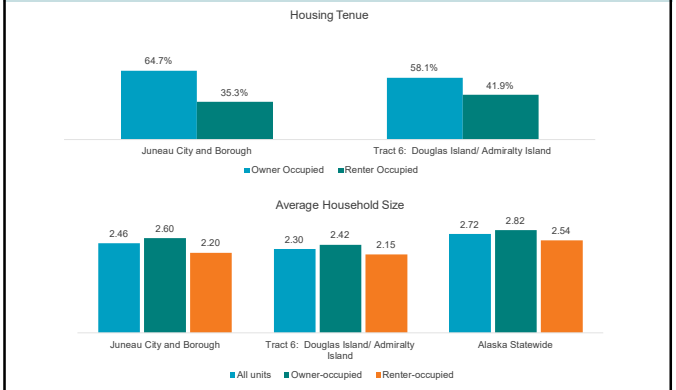
Housing Tenure

Roughly 65% of housing units are owner occupied units in Juneau and renters have smaller households



Source: 2021 ACS 5-Year Estimates, Selected Housing Characteristics (Table DP04)

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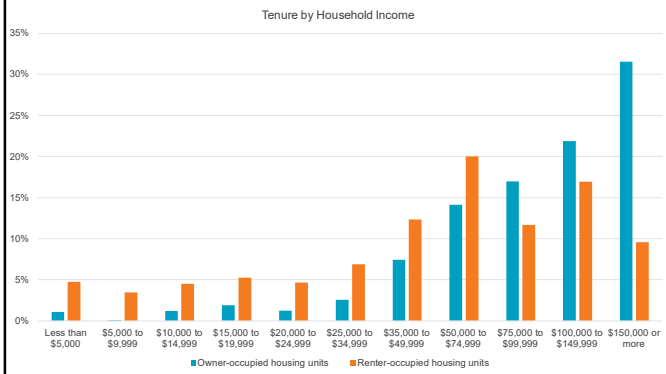
Tenure By Household Income

Lower income households are more likely to rent



Source: 2021 ACS 5-Year Estimates, Household Income by Tenure (Table S2503)

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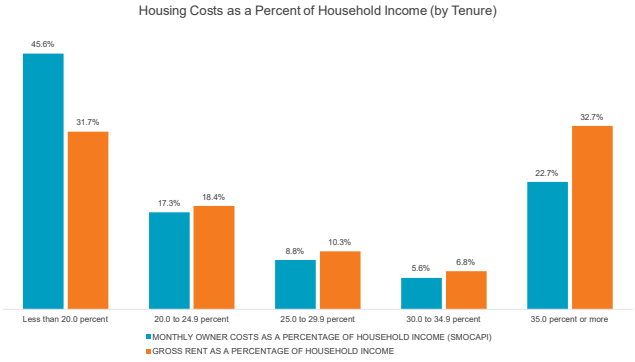
Affordability

Nearly 40% of renters are considered "cost burdened" or spend more than 30% of their total household income on housing



Source: 2021 ACS 5-Year Estimates, Selected Housing Characteristics (Table DP04))

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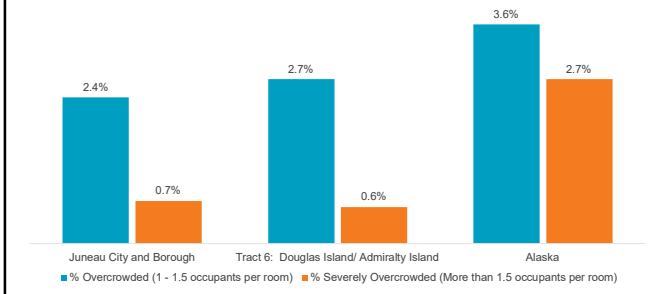
Overcrowding

Less than 1% of occupied units are considered "severely overcrowded" in Juneau



Source: 2021 ACS 5-Year Estimates, Selected Housing Characteristics (Table DP04)

Occupants per Room: Obtained by dividing the number of people in each occupied housing unit by the number of rooms in the unit.

Rooms: Rooms include living rooms, dining rooms, kitchens, bedrooms, finished recreation rooms, enclosed porches suitable for year-round use, and lodgers' rooms.

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Some initial takeaways

- Population in Juneau is expected to decline slightly from now until 2050, alongside a slight decline in the overall population in Southeast.
- Housing stock is aging in Juneau, as in the state as a whole.
- Most housing units in Juneau are single family homes, which account for 60% of housing units.
- Nearly 40% of renter households in Juneau are housing cost burdened, meaning they pay over 30% of income to housing. About 28% of owner households are cost burdened.

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Forecasting Housing Need

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Methodology: Housing Need Forecast

This model has been purpose-built to forecast housing demand in Alaska communities, including rural Alaska, over a specific period. The model uses Census and State DOL data to estimate the need for new units, based on population growth and overcrowding, and the need for rehab or replacement of existing units based on three proxies for housing condition.

New units needed over the next 10 years
- New units needed due to expected population growth
- New units needed due to overcrowding in existing housing

Rehab or replacement units needed
- Aging housing stock (% of housing stock built before 1970)
- Housing units without plumbing (% of occupied units without plumbing + kitchen facilities)
- Mobile home units that need replacement sooner than other unit types (% of total housing stock that are mobile home units)

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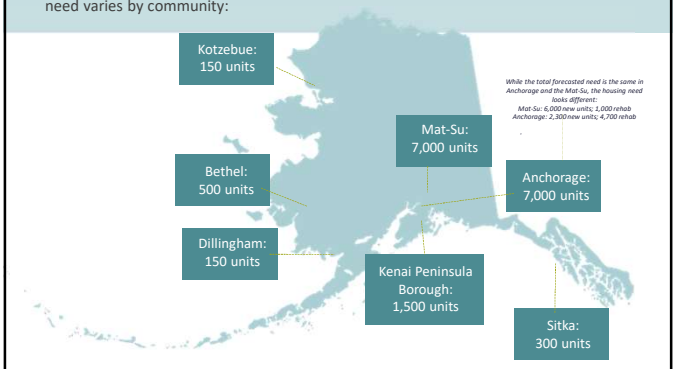
27,500 units are needed (new and rehab)across the State over the next 10 years. The need varies by community:



Source: Agnew::Beck Consulting Housing Need Forecast Model, using Census and DOL data Bethel data from work for ONC with NWAK and SALT

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Initial Housing Needs Forecast

Population Growth

	Assumed Forecast of Avg. Annual Growth	Population Estimate 2022	Population Forecast 2032	Net Population Change Between 2022 and 2032	Average Household Size	Housing Needed for New Population Growth	Vacancy Rate to Ensure Adequate Supply	Adjusted Need Due to Vacancy Rate
Juneau City and Borough	-0.4%	32,202	31,217	-985	2.5	0	5%	0

Overcrowding

Community	Occupied Housing Units	% Overcrowded (1 - 1.5 occupants per room)	% Severly Overcrowded (More than 1.5 occupants per room)	Overcrowded + Severely Overcrowed %	New Units Needed to Alleviate Severe Overcrowding	New Units Needed to Alleviate Overcrowding + Severe Overcrowding
Juneau City and Borough	12,922	2.4%	0.7%	3.1%	90	401

Replacement/Rehab

Community	All Housing Units	Total Year-Round Housing	% of Occupied Housing Units Without Plumbing + Kitchen Facilities avg	% of Total Housing Stock Built Before 1960	% of Total Housing Stock that are Mobile Home Units	Avg Factor to Indicate Homes to Replace	New Units Needed to Replace Homes Possibly in Poor Condition
Juneau City and Borough	13,987	13,716	0.4%	13%	8%	7%	974

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Housing Needs Forecast (Summary)

Item	Units	Notes
Current estimate of Housing Units	13,987	American Community Survey (ACS) 2017-2021 5-Year Estimate
Current Estimate of Seasonal/Recreational Units	344	American Community Survey (ACS) 2017-2021 5-Year Estimate
Total Permanent Units	13,643	Current number of housing units less housing units vacant for seasonal or recreational use.
New Units Needed Due to Population Change 2020-2030	-	Alaska Department of Labor and Workforce Development 2021-2050 Population Projections published in 2022.
New Units Needed Due to Overcrowding	401	Overcrowding is defined by Census and HUD as homes with more than 1.0 occupant per room. Rooms are defined as the total number of rooms, not just the bedrooms. American Community Survey (ACS) 2017-2021 5-Year Estimate
Total New Units Needed	**401**	
Estimated annual absorption	40.1	Calculated over a 10 year period.
Rehab Needed Due to Housing Condition	**974**	American Community Survey (ACS) 2017-2021 5-Year Estimate
Total New + Rehab Need	**1,374**	
Extrapolated Housing Need for USCG Icebreaker	*260*	*Extrapolated housing need to support USCG personell and dependants associated with Aiviq Home Port*
Adjusted New Unit Need- Aiviq Home Port	*661*	
Adjusted New + Rehab Need	***1,634***	*Includes extrapolated housing need to support Aiviq Home Port*

Notes:

The 2017 THRHA Housing Needs estimated a need for 1,184 New Units and 771 Replacement Units using a similar methodology

- *Population was forecasted to increase at an AAGR of 0.4% for that study- main driver behind the higher estimate for new housing units*
- *The need for replacement units continues to grow as homes age*

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USCG Ice Breaker: Aiviq Home Port

Additional information to inform estimated need

Table A-1. Coast Guard and NSF Polar Ships

	Coast Guard			NSF		
	Polar Star	*Polar Sea*	*Healy*	*Palmer*	*Laurence M. Gould*	*Sikuliaq*
Currently operational?	Yes	No	Yes	Yes	Yes	Yes
Entered service	1976	1978	2000	1992	1997	2015
Length (feet)	399	399	420	308	230	261
Displacement (tons)	13,200	13,200	16,000	6,500	3,780	3,665
Icebreaking capability (ice thickness in feet) at 3 knots or other speed	6 feet	6 feet	4.5 feet	3 feet	1 foot at continuous forward motion	2.5 or 3 feet at 2 knots
Icebreaking capability using back and ram (ice thickness in feet)	21 feet	21 feet	8 feet	n/a	n/a	n/a
Operating temperature	-60° Fahrenheit	-60° Fahrenheit	-50° Fahrenheit	n/a	n/a	n/a
Crew (when operational)	155[a]	155[a]	85[b]	22	16	22
Additional scientific staff	32	32	35[c]	27-37	26 to 28[d]	26

Sources: Prepared by CRS using data from U.S. Coast Guard, National Research Council, National Science Foundation, DHS Office of Inspector General, and (for Palmer) additional online reference sources.

Notes: n/a is not available.

a. Includes 24 officers, 20 chief petty officers, 102 enlisted, and 9 in the aviation detachment.

b. Includes 19 officers, 12 chief petty officers, and 54 enlisted.

c. In addition to 85 crew members 85 and 35 scientists, the ship can accommodate another 15 surge personnel and 2 visitors.

d. Plus 9 more in a berthing van.

- Juneau is currently the preferred home port for the icebreaker Aiviq
- Existing USCG dock at Auke Bay capable of accommodating vessel
- Land owned by NOAA considered for transfer to the City to be used to support home port operations
- Estimated 190 enlisted and 400 dependents
- High level estimate of need between 240 and 280 housing units

Sources:

ADN Article: https://www.adn.com/alaska-news/military/2022/12/09/juneau-may-become-home-to-only-coast-guard-icebreaker-stationed-in-alaska/#:~:text=A%20privately%20owned%20icebreaker%20with,Dan%20Sullivan%20said%20recently

January 2023 Federal Funding Update: https://mccmeetingspublic.blob.core.usgovcloudapi.net/juneauak-meet-cea8fc5e48b342519621 4ccfd8eb7159/ITEM-Attachment-001-fc089a3d12df44598c4baa556068bb40.pdf

Coast Guard Polar Security Cutter Program: https://sgp.fas.org/crs/weapons/RL34391.pdf

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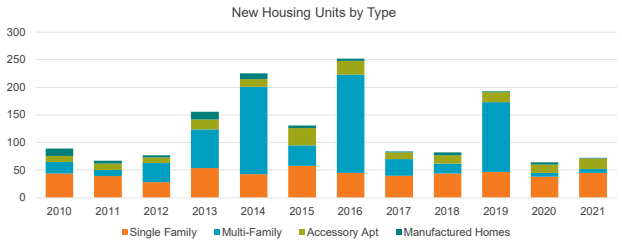
Historical Building Trends

Averaging between 99-124 new housing units per year



Years	Single Family	Multi-Family	Accessory Apt.	Manufactured Homes	Total
2010-2021 (10-year)	44	58	17	6	124
2017-2021 (5-year)	43	38	16	3	99

Source: JEDC Augst 2022 Research Note (https://www.jedc.org/wp-content/uploads/2022/08/JEDC-August-2022-Research-Note-Juneau-Housing-Stock-and-Short-Term-Rentals.pdf)

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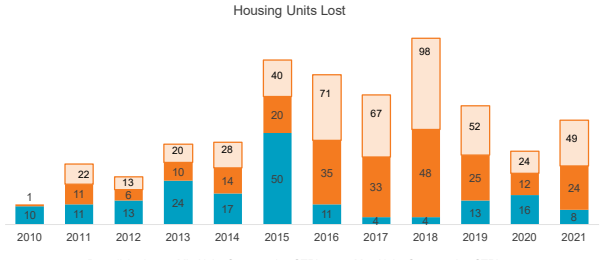
Housing Units Lost

Estimated average annual loss of 35 to 67 housing units



Average	Demolished	Min Units Converted to STR's	Max Units Converted to STR's	Average Units Lost
2010-2021 (10-year)	15	20	40	35-55
2017-2021 (5-year)	9	28	58	37-67

Source: JEDC Augst 2022 Research Note (https://www.jedc.org/wp-content/uploads/2022/08/JEDC-August-2022-Research-Note-Juneau-Housing-Stock-and-Short-Term-Rentals.pdf)

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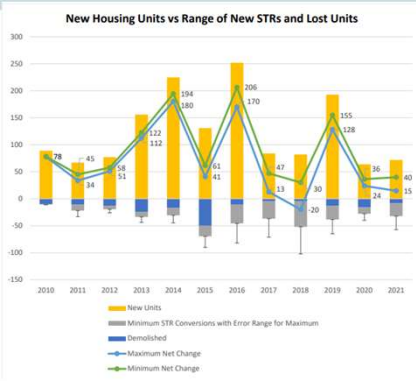
Net Change in Housing Stock

Adding and average of 17-80 housing units per year

Adding:
- 99-124 new units per year

Subtracting:
- 9-15 demolished units per year
- 35-67 STR conversions per year

Average Net Change in Housing Stock:
- 17-80 housing units per year



Source: JEDC Augst 2022 Research Note (https://www.jedc.org/wp-content/uploads/2022/08/JEDC-August-2022-Research-Note-Juneau-Housing-Stock-and-Short-Term-Rentals.pdf)

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Housing Bridge + Affordability

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What is a housing bridge?

- A housing bridge is a visual assessment tool that shows a communities housing need across all income levels and at various market prices.
- The bridge represents all the housing inventory necessary to support a diversity of individuals, families and income levels within a community.

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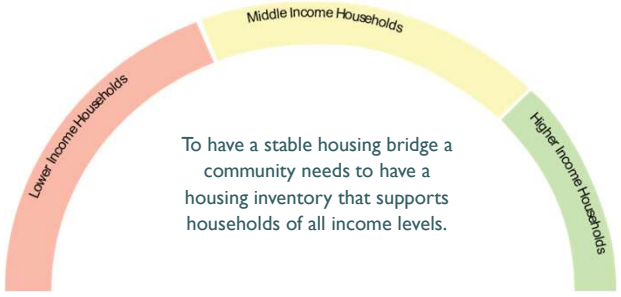
Bridge Foundations



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Bridge Foundations - Subcategories

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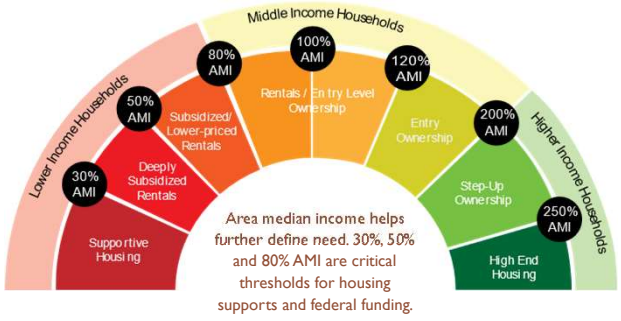
Bridge Foundations – Area Median Income (AMI)



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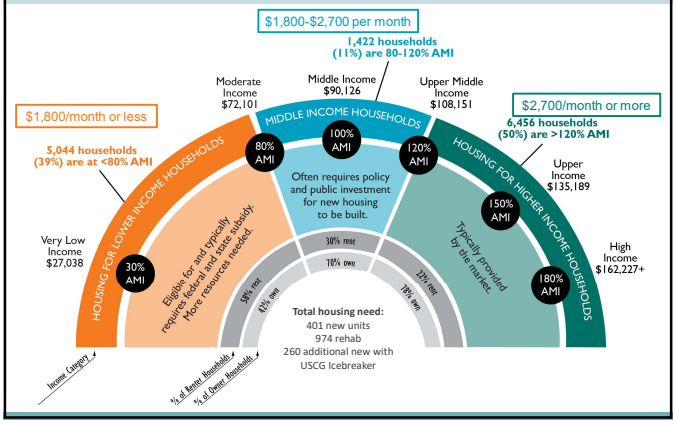
Housing Needs Summary



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Housing Need by Tenure and Income

Excludes Possible Housing from Possible USCG Icebreaker)

Juneau City and Borough			
Breakdown of households	**<80% AMI**	**80-120% AMI**	**>120% AMI**
Total households	5,044	1,422	6,456
Percent of households	39%	11%	50%
Percent of households <120% AMI	78%	22%	
Tenure Breakdown	**<80% AMI**	**80-120% AMI**	**>120% AMI**
Own	42%	70%	78%
Rent	58%	30%	22%
Affordable Monthly Rents	*$1,800 of less*	*$1,800-$2,700*	*$2,700 or greater*
Housing forecast breakdown	**<80% AMI**	**80-120% AMI**	**>120% AMI**
New units needed due to population change	0	0	0
New units needed due to overcrowding	312	88	-
Rehab / replacement (1960 or before)	380	107	486
Total housing need by income range	**<80% AMI**	**80-120% AMI**	**>120% AMI**
Total New	312	88	0
Total Rehab / Replacement	380	107	486
Total Need	**693**	**195**	**486**
% of Total Need	50.4%	14.2%	35.4%
Tenure	**<80% AMI**	**80-120% AMI**	**>120% AMI**
Own	131	62	0
Rent	181	27	0

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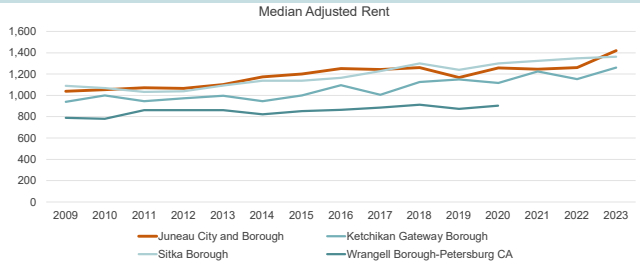
Median Adjusted Rent

Median rental cost increasing at an average rate of 4% per year 2019-2023.
Prior to 2019 increasing at an average rate of 2% per year



	2019				2023			
Survey Area	**Adjusted Rent**	**Surveyed**	**Vacant**	**Vacancy Rate**	**Adjusted Rent**	**Surveyed**	**Vacant**	**Vacancy Rate**
Juneau City and Borough	1,167	1,087	65	5.98	1,420	1,121	46	4.10
Douglas	1,151	128	10	7.81	1,370	125	9	7.20
Juneau	1,192	935	54	5.78	1,420	972	37	3.81

**Adjusted rent includes the cost of all utilities, whether they are included in the monthly rent payment or paid separately*

Source: AHFC Rental Market Surveys, 2009-2023

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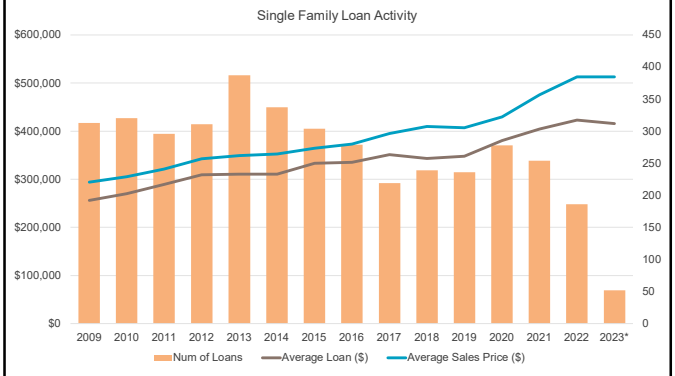
Single Family Loan Activity

The number of loans has been decreasing and average sale prices are increasing



Source: Alaska Dept. of Labor and Workforce Development, Research and Analysis (https://live.laborstats.alaska.gov/housing/loanarea/1)

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