



Lihue Civic Center Redevelopment Feasibility Study **Findings + Recommendations**

Kaua'i County,
Hawaii

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Līhu'e Civic Center Redevelopment Feasibility Study

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Introduction



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View of the Lihue Civic Center looking southeast from Kuhio Hwy



View of the Transit Hub along Eiwa St.



View of the Mo'ikeha building looking north from Rice St.



View of the Lihue Civic Center looking northwest from Rice St.

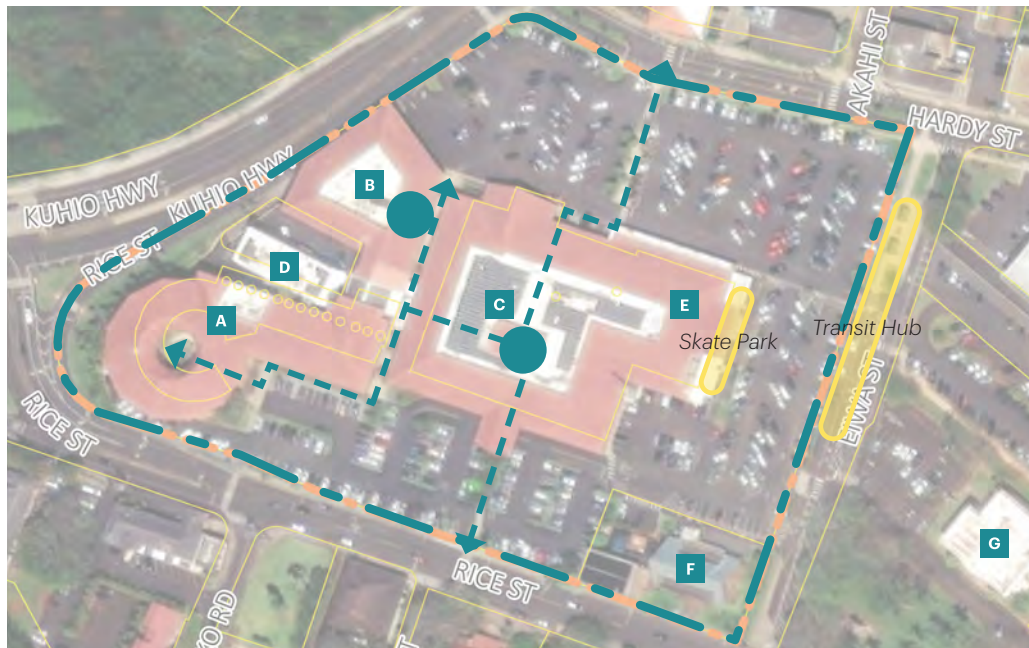
Project Background

Project Intent

Kaua'i County faces a housing shortage, including a shortage of workforce housing. This project analyzes the financial feasibility of residential development on the existing surface parking surrounding the County office building complex at the Civic Center to see if this might be a suitable location for new workforce housing.

The Civic Center Site Today

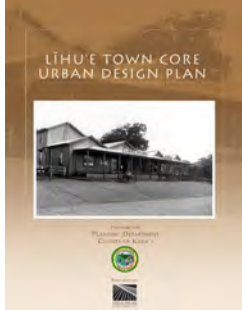
The Lihue Civic Center occupies the buildings originally built as the Lihue Shopping Center in 1966. The site is 9.7 acres, and the existing building area on the site is 3.9 acres. 493 surface parking spaces surround the building on three sides. The former Lihue Shopping Center is now used as county office buildings. Eiwa Street, bordering the eastern edge of the site, serves as a transit hub with bus stops for seven bus routes running to and from the Civic Center.



Legend

- A** Mo'ikeha Building
- B** Kapule Building
- C** Pi'ikoi Building
- D** Hawaii Telecom
- E** Youth Center (Planned)
- F** Kaua'i Museum
- G** Historic County Building
- Pedestrian Network
- Atriums and Lobbies
- Activity Areas
- Project Area Boundary
- Parcel Lines

Planning Context



2010 Lihue Town Core Urban Design Plan



2015 Lihue Community Plan



2018 Strategic Plan for Transit-Oriented Development (TOD)

The Civic Center is being considered as a potential housing infill opportunity site after more than a decade of policy direction, growing housing need, infrastructure investment, and transit planning.

2010 Lihue Town Core Urban Design Plan

This plan envisions and plans for a mixed-use and transit-oriented Town Core and supports infill development in the area. The plan designates the Civic Center as a "center of civic and community activity". The plan did not envision housing at this site.

2015 Lihue Community Plan

The Community Plan confirms the policy direction set by the 2010 Town Core Urban Design Plan and establishes a vision, guiding principles, and policies for the next 20 years of development in the Town Core.

2015 onward: TIGER Grant Funding and Implementation

In 2015, Kaua'i County receives \$13.8m in grant funding for a variety of transportation infrastructure improvements improving non-vehicular connectivity in the Town Core. Implementation is ongoing and includes "road diet" projects and the addition of bicycle lanes on Rice Street and Hoolako Street.

2018 Strategic Plan for Transit-Oriented Development (TOD)

The State of Hawaii established a state vision for livable communities supported by TOD and identified multiple priority TOD planning projects in the Lihue town core, including potential redevelopment at the Old Police Station site and the development of Pua Loke Affordable Housing.

	<p>2010 Lihue Town Core Urban Design Plan</p>	<p>2015-Present Tiger Grant Funding and Implementation</p>	<p>2018 Kaua'i County General Plan</p>
		<p>2015 Lihue Community Plan</p>	<p>2018 Strategic Plan for Transit-Oriented Development (TOD)</p>

2018 Kaua'i County General Plan

Lihu'e is identified as the destination for nearly half of the new housing units on the island by 2035. This island-wide plan identified a growing need for additional housing on Kaua'i and allocated growth by Planning District. The Lihu'e Planning District was allocated 4,604 new housing units from 2010-2035, representing 47% of total growth on Kaua'i. (Reference: Kaua'i County General Plan, Figure 1-4)

2020 Mayor's Request for Developer Proposals

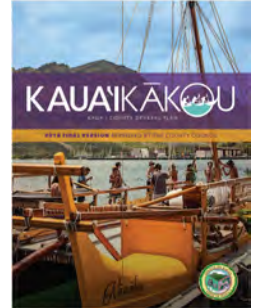
In 2020, Mayor Kawakami released a request for proposals (RFP) to developers to build housing on the Civic Center site. Inspired by a model he'd visited elsewhere in Hawaii, the mayor hoped to address the housing crisis by making public land available for housing development. While the RFP did not yield any developer responses, the Mayor's Office still sees the Civic Center as a housing opportunity site and hopes that this feasibility plan can offer a tangible plan and specifications to make housing a reality on this site.

2023 Governor's Housing Emergency Proclamation

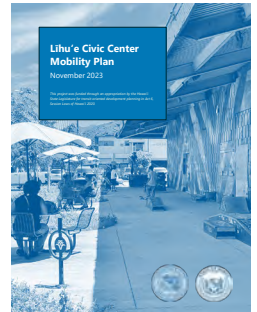
In October 2023, Governor Green issued his second Emergency Proclamation related to affordable housing, aiming to eliminate barriers to developing affordable and workforce housing and highlighting the dire housing need throughout the state.

2023 Civic Center Mobility Plan

The Mobility Plan studied the current and projected transportation infrastructure needs in the Civic Center vicinity. Recognizing that the Civic Center is already a hub for the Kaua'i Bus, the Mobility Plan explored the addition of micromobility solutions to the area. The Plan also addressed the management of existing parking, particularly underutilized parking, through policy and design recommendations.



2018 Kaua'i County General Plan



2023 Civic Center Mobility Plan

2023
Governor's Housing
Emergency
Proclamation

2020
Mayor's Request
for Developer
Proposals

2023
Civic Center
Mobility Plan

Residential Market Potential at the Civic Center

Market Potential Analysis

To inform the consultant team's understanding of housing possibilities on this site, Zimmerman-Volk Associates produced a residential analysis of market potential for the Civic Center. This analysis studies the question: If you were to build housing in this location, who makes up the likely demand, and how long would it take for the market to absorb that housing?

This analysis identified three tiers of affordable and workforce housing to consider for the Civic Center site:

- Affordable housing (60%-80% AMI).
- Workforce housing (80%-120% AMI). This is a kind of housing that is difficult to provide through conventional subsidized affordable housing delivery mechanisms.
- Market rate (120% AMI and above).

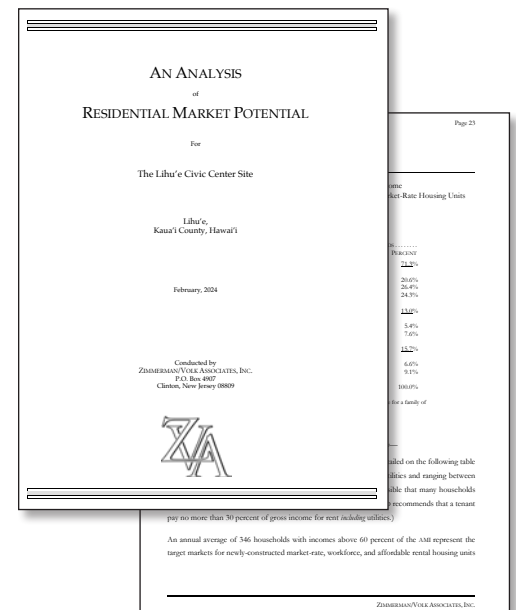
The market potential analysis found that across these three tiers, **the market could absorb between 370 and 485 housing units on the Civic Center site over the next five years.**

This guided the levels of intensity that would be reasonable to consider for the Civic Center site. This could be absorbed and filled by people who were waiting to fill this kind of housing.

The full market potential analysis report is included as Appendix A, Market Potential Analysis.

Optimum Market Position THE LIHU'E CIVIC CENTER SITE Kaua'i County, Hawai'i				
PERCENT MIX	UNIT CONFIGURATION	BASE RENT/PRICE	UNIT SIZE	BASE RENT/PRICE PER SQ. FT.
MULTI-FAMILY FOR-RENT				
. Affordable (60 to 80% AMI)				
25%	Studio/1ba	\$1,150 to \$1,350	500 to 600 sf	\$2.25 to \$2.30
30%	1br/1ba	\$1,450 to \$1,600	700 to 750 sf	\$2.07 to \$2.13
15%	2br/1ba	\$1,750 to \$1,850	850 to 950 sf	\$1.95 to \$2.06
30%	3br/1ba	\$1,950 to \$2,200	1,100 to 1,250 sf	\$1.76 to \$1.77

continued on the following page . . .



Above: Snippets from the Market Potential Analysis

Testing Financial Feasibility

Feasibility Analysis

Financial feasibility was evaluated by static developer-side proforma analysis on a series of building prototypes developed by the consultant team for this particular site. The consultant team iterated these building prototypes to achieve the greatest feasibility.

Building prototypes reflected the unit mix and affordability levels recommended by the market potential analysis.

Where financing gaps existed for building prototypes, those are presented as financing gaps both per unit and per building prototype. These findings are presented for each building type and scenario outcome in Chapter 2 (3-4 Story Height Scenario) and Chapter 3 (7-Story Height Scenario).

For full feasibility results, see Appendix B, Financial Feasibility Proforma Results.

The image shows three identical financial proforma tables for a 'Multiplex Large' building. Each table is organized into several sections:

- DEVELOPMENT PROGRAM ASSUMPTIONS:** Lists assumptions for development cost (Square Feet), building development (Studio, 1-Bed, 2-Bed, 3-Bed, Total Area), net rentable square feet, common area, and gross building area.
- SITE DEVELOPMENT:** Details costs for site coverage, circulation, open space, parking area, surface parking spaces, and structured parking spaces.
- FINANCIAL OPERATING INCOME (ANNUAL):** Breaks down income by unit type (Studio, 1-Bed, 2-Bed, 3-Bed) and includes losses to vacancy, gross residential revenue, and operating expenses.
- EXPECTED PROPERTY VALUE:** Shows the total expected property value based on a 6.0% cap rate.
- PROJECT DEVELOPMENT COSTS:** Lists costs for land acquisition, construction, and other project costs.

TOTAL

BUILDING OPERATING INCOME (ANNUAL)

- Gross Potential Rent (80% AMI*)
 - Studio \$1,350.00 per SF/Month
 - 1-Bed \$1,600.00 per SF/Month
 - 2-Bed \$1,850.00 per SF/Month
 - 3-Bed \$2,200.00 per SF/Month
 - \$0 per Space/Month
 - 5.0% of Gross Income
- per year \$136,800
- Lesses to Vacancy -\$7,200
- Gross Residential Revenue per month \$136,800
- Gross Residential Revenue per Year \$1,641,600
- Operating Expenses (35% of Income) -\$540,000
- Net Operating Income (NOI) \$1,101,600**

\$1,101,600

TOTAL

PROJECT DEVELOPMENT COSTS

- Land Acquisition \$1,910,000
- Construction Cost \$1,450,315
- Basic Site Work (Utilities, open space, grading) \$20,160,000
- Building Direct Cost \$180,000
- Surface Parking Direct Cost \$0
- Tuck under Parking Direct Cost \$0
- Structured Parking Direct Cost \$0
- Total Construction Cost \$21,790,315**

\$21,790,315

5.0% Cap Rate

\$22,032,000

Above and right: Snippet of financial feasibility pro forma analysis

Community Engagement

Kickoff Trip Stakeholder Interviews

During the project kickoff trip in September 2023, the consultant team interviewed five groups of stakeholders in order to understand a diverse range of perspectives within the community and learn from local expertise. The stakeholder groups were as follows:

- Transportation and Parks
- Mayor's Office
- Business and Community Institutions
- Economic Development and Housing
- Water and Wastewater

The notes from these stakeholder meetings are included in Appendix C, Stakeholder Meeting Notes.

Site Plan Alternatives Stakeholder Engagement

In April and May 2024, upon completion of the first round of building types and site plan alternatives (presented in this memo in Chapter 2), the County facilitated stakeholder meetings to solicit feedback on the plan alternatives. Highly graphic posters conveyed information about building prototypes, site plan options, and parking strategies. The site plan alternatives were also shared publicly online via StoryMap.

Below: Posters communicating site plan alternatives for April and May 2024 stakeholder outreach.



Closing Community Workshop

In August 2024, the consultant team facilitated a hybrid (in-person and virtual) closing workshop to present the full results of the feasibility analysis, discuss implementation options, and solicit feedback about community priorities

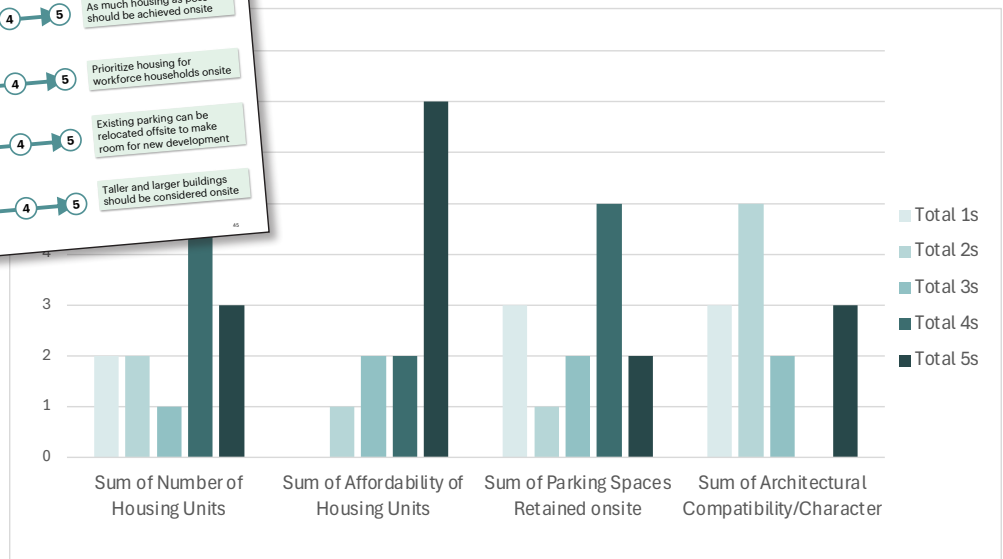
for development on this site and within the broader Town Core. Participants' responses to two sets of survey questions are included in Appendix D, Community Engagement Survey Results.



Above: Photographs from the August 2024 Closing Community Workshop.

Question 1: Where along the spectrum do you fall for each of these factors?

- Number of housing units**
Minimize housing onsite or prioritize housing elsewhere. Spectrum: 1 (Minimize) to 5 (As much housing as possible should be achieved onsite).
- Affordability of housing units**
Prioritize market-rate housing onsite. Spectrum: 1 (Prioritize market-rate) to 5 (Prioritize housing for workforce households onsite).
- Parking spaces retained onsite**
More onsite parking spaces should be reserved for existing civic uses/activities. Spectrum: 1 (Reserve for civic) to 5 (Existing parking can be relocated offsite to make room for new development).
- Architectural compatibility/character**
Form, scale, and character of new development should respect what's existing onsite. Spectrum: 1 (Respect existing) to 5 (Taller and larger buildings should be considered onsite).



Above and right: Survey question and tallied results from the August 2024 Closing Community Workshop.



RESERVED
PARKING
UNAUTHORIZED
VEHICLES
WILL BE CITED AND
TOWED AT OWNERS
EXPENSE
COUNTY OF MAUI
DEPT. OF PUBLIC WORKS
(PHONE: 961-2122)

COUNTY
EMPLOYEE
PARKING

←



ONE WAY
←



3-4 Story Height Scenario

CHAPTER
2

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3-4 Story Height Scenario Overview

This scenario tests the feasibility of building types that are compatible in scale with the vision for the adjacent areas of the Town Core.

"Pros" of Scenario One

Three to four story buildings are stick-built and simple to construct, which generally makes them less expensive to build than taller building types and potentially suited to deliver housing at an affordable price point.

They also are similar in scale to existing buildings in the area which would be an advantage in considering compatibility with the surrounding built form.

"Cons" of Scenario One

However, the addition of housing on the Civic Center site would require a reduction of existing surface parking or relocation of surface parking to remote locations within the Civic Center.

Some building types would require subsidy to achieve below-market-rate rents, which adds complexity to the project delivery method.

Scenario Components

Building Prototypes

The team developed building prototypes with a range of densities and tested them on the different sections to create multiple scenarios.

This chapter describes the building prototypes used and their financial feasibility, how the prototypes fit onto sections of the site, three full build-out scenarios with a range of densities and parking strategies to address parking replacement.

Sections of the Site

The County could choose to develop some sections of the site and not others, or choose not to develop any of the site. The alternatives to follow show three options for full buildout of Sections A, B, and C of the Civic Center site, however there are many more combinations that could be developed. These site plans illustrate low-yield, medium-yield, and high-yield alternatives.

Building Prototypes

These building prototypes were developed for the Civic Center site based on:

- Scale compatibility with surrounding context
- Natural cross-ventilation (in all prototypes except the double-loaded corridor)
- Number of units delivered
- Parking configuration as surface or tuck-under parking, which is less expensive to build than structured parking

The project team tested the financial feasibility of six basic building prototypes to evaluate what the County might reasonably expect a developer to build. In response to the initial financial feasibility results, the team developed variations on three of the most feasible basic prototypes for a second round of feasibility testing. The variations incorporate smaller unit sizes to increase units provided per square

footage. These results equipped the team to begin placing these hypothetical buildings on the Civic Center site to test its capacity for new housing.

Building Prototype Assumptions

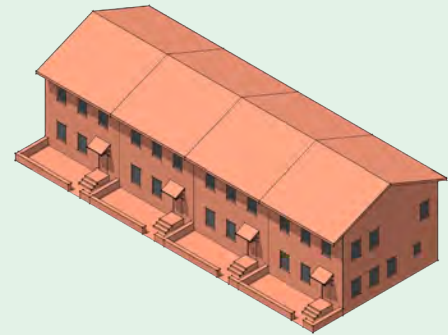
To inform the building prototypes and site plans, this project included a market potential analysis that studied the potential market demand for different unit types for various demographic segments and price points.

This analysis included recommendations for unit sizes, unit mix, and affordability levels that would best position any new housing units on the Civic Center site to meet the market demand and fulfill the County's policy goal for workforce housing. These recommendations, shown in the table below, are built into the building prototypes.

Optimum Market Position		
Multi-Family For-Rent - Affordable (60 to 80% AMI)		
Percent Mix	Unit Configuration	Unit Size
36%	Studio/1ba	500 - 600 sf
43%	1br/1ba	700 - 750 sf
21%	2br/1ba	850 - 950 sf
Single-Family Attached For-Sale - Market Rate (120% AMI and up)		
Percent Mix	Unit Configuration	Unit Size
100%	3br/2.5ba	1,450 - 1,600 sf

Source: Zimmerman/Volks Associates, Inc., 2023

Townhouse



The townhouse is an attached, single-family, for-sale unit. Each individual unit is 25 feet wide, but they are arranged on the site in groups of four so that the entire length of the building is 100 feet. When placed on the Civic Center site, this building type has the lowest unit count yield of all types tested. It is not a very efficient building type, primarily because it provides the largest of the tested unit sizes.

This building type was the only building type tested as a market rate for-sale (as opposed to rental) product. In order to be feasible for a developer to build, the sale price would need to be near one million dollars, which would not be in the price range of workforce housing.

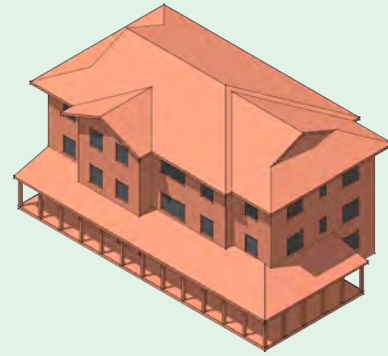
Program Summary

Total Units	4
Unit Mix (Single Family)	
3 Bedroom	4 @ 1600 sf
Height	2 stories
Building Footprint	100' x 32'

Sale Price per Unit

Market Rate	\$900,000 - \$1,000,000
-------------	-------------------------

Mansion Apartment



The mansion apartment contains six units. When placed on the Civic Center site, this building type has the second lowest unit count yield of all types tested. It is not a very efficient building type, primarily because it provides larger unit sizes. However, there are no shared stairs or entries, resulting in increased privacy for residents.

This building type was the least feasible for providing housing at 120% AMI. Due to the low feasibility as a multi-family building, this prototype was not used in the site scenarios.

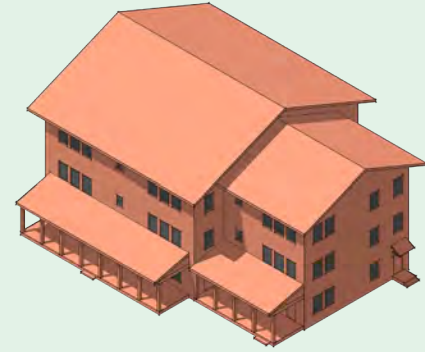
Program Summary

Total Units	6
Unit Mix	
1 Bedroom	3 @ 790 sf
2 Bedroom	3 @ 1330 sf
Height	3 stories
Building Footprint	72' x 38'

Financing Gap per Unit

60% AMI	\$1,051,491 gap
80% AMI	\$1,022,991 gap
120% AMI	\$741,216 gap

Multiplex

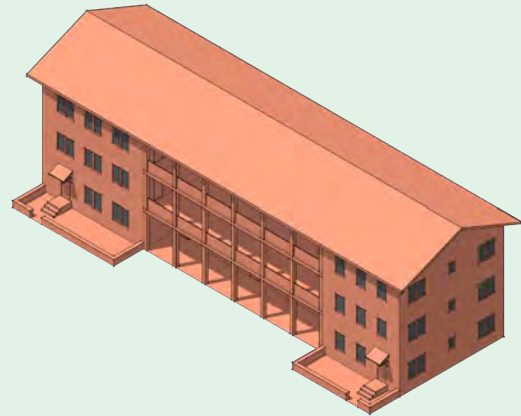


The multiplex contains 12 units. When placed on the Civic Center site, this building type has the second highest unit count yield of all types tested. The design offers cross-ventilation, which is a key passive cooling tool to keep homes comfortable in Kaua'i's climate without relying on air conditioning. Its small footprint and house-scale building width make it a compatible prototype near existing neighborhoods, such as along Hardy Street.

This building type was the most feasible for providing housing at 120% AMI with regular units, and when tested with smaller units returned a profit at 120% AMI.

Program Summary		
	Standard Unit Sizes	Small Unit Sizes
Total Units	12	18
Unit Mix		
Studio	3 @ 500 sf	6 @ 370 sf
1 Bedroom	3 @ 745 sf	6 @ 540 sf
2 Bedroom	3 @ 900 sf	6 @ 700 sf
3 Bedroom	3 @ 1250 sf	-
Height	3 stories	3 stories
Building Footprint	77' x 55'	77' x 55'
Financing Gap per Unit		
	Standard Unit Sizes	Small Unit Sizes
60% AMI	\$290,133 gap	\$163,442 gap
80% AMI	\$247,790 gap	\$129,242 gap
120% AMI	\$81,322 gap	No gap; \$28,408 profit

Single-Loaded Corridor

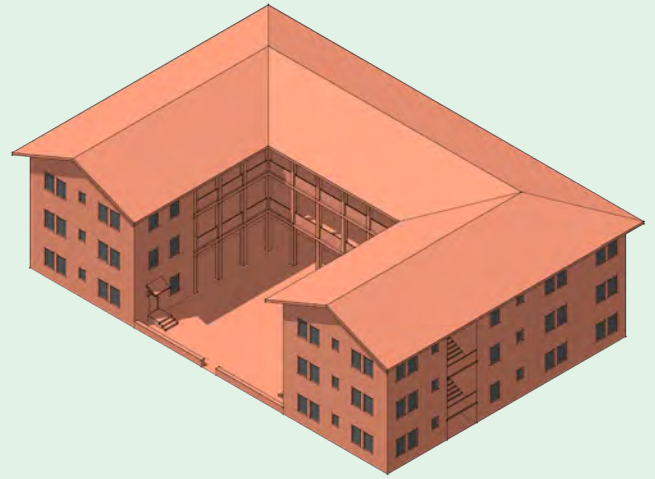


The single-loaded corridor contains 12 units. When placed on the Civic Center site, this building type has the fourth highest unit count yield of all types tested. While it is only a moderately efficient building type, it is common in Kaua'i, because its design offers cross-ventilation, which is a key passive cooling tool to keep homes comfortable in Kaua'i's climate without relying on air conditioning.

This building type was the second most feasible for providing housing at 120% AMI, and when tested with smaller units returned the highest profit at 120% AMI.

Program Summary		
	Standard Unit Sizes	Small Unit Sizes
Total Units	12	21
Unit Mix		
Studio	3 @ 500 sf	12 @ 250 sf
1 Bedroom	3 @ 750 sf	9 @ 350 sf
2 Bedroom	3 @ 900 sf	-
3 Bedroom	3 @ 1175 sf	-
Height	3 stories	3 stories
Building Footprint	120' x 35'	120' x 30'
Financing Gap per Unit		
	Standard Unit Sizes	Small Unit Sizes
60% AMI	\$287,994 gap	\$54,270 gap
80% AMI	\$248,094 gap	\$13,555 gap
120% AMI	\$103,232 gap	No gap; \$96,909 profit

Single-Loaded Courtyard



The single-loaded courtyard contains 21 units oriented around a shared courtyard providing common outdoor yard space for residents. The corridor is a covered, open air walkway, providing light, air, weather protection, and shade. When placed on the Civic Center site, this building type has the third highest unit count yield of all types tested. The design offers cross-ventilation, which is a key passive cooling tool to keep homes comfortable in Kaua'i's climate without relying on air conditioning. Due to its large footprint, this type only fits along Hardy St. limiting its applicability across the site.

This building type was the fourth most feasible for providing housing at 120% AMI.

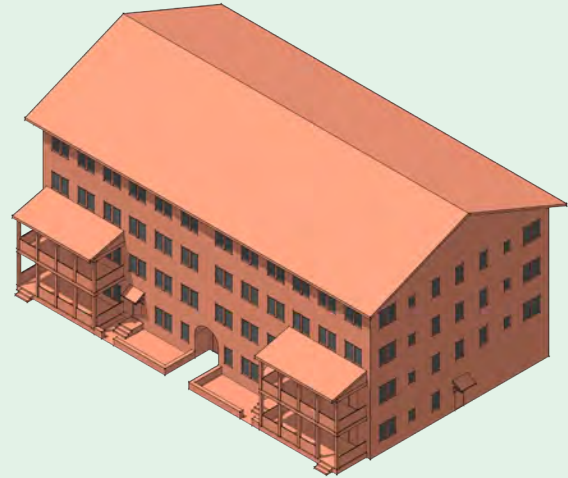
Program Summary

Total Units	21
Unit Mix	
Studio	7 @ 500 sf
1 Bedroom	6 @ 700 sf
2 Bedroom	2 @ 900 sf
3 Bedroom	6 @ 1175 sf
Height	3 stories
Building Footprint	120' x 80'

Financing Gap per Unit

60% AMI	\$319,740 gap
80% AMI	\$276,311 gap
120% AMI	\$135,168 gap

Double-Loaded Corridor



The double-loaded corridor contains 21 units with tuck-under parking. When placed on the Civic Center site, this building type has the highest unit count yield of all types tested. While it is a very efficient building type, it is not very common in Kaua'i, perhaps because its design does not offer cross-ventilation, which is a key passive cooling tool to keep homes comfortable in Kaua'i's climate without relying on air conditioning.

This building type was the third most feasible for providing housing at 120% AMI, and when tested with smaller units returned a profit at 120% AMI.

Program Summary		
	Standard Unit Sizes	Small Unit Sizes
Total Units	21	28
Unit Mix		
Studio	4 @ 500 sf	11 @ 370 sf
1 Bedroom	7 @ 750 sf	12 @ 475 sf
2 Bedroom	3 @ 900 sf	5 @ 700 sf
3 Bedroom	7 @ 1175 sf	-
Height	4 stories	3 stories
Building Footprint	110' x 60'	110' x 60'
Financing Gap per Unit		
	Standard Unit Sizes	Small Unit Sizes
60% AMI	\$335,160 gap	\$146,354 gap
80% AMI	\$290,817 gap	\$107,711 gap
120% AMI	\$124,955 gap	No gap; \$33,786 profit

The "Puzzle Pieces" of the Civic Center Site



Section A Existing Conditions



Section B Existing Conditions



Section C Existing Conditions

Three Sections of the Site

The site was subdivided into three sections as a way to analyze a phased approach to development and the viability of building on only a portion of the site to preserve existing parking for the County offices and neighboring uses.

Section A

Section A faces Hardy Street across from shopfronts and a residential neighborhood. It is currently a parking lot for County offices and abuts the main walkway of the Civic Center pedestrian network on the southwest and the transit hub on the east.

This section could be developed as one parcel with buildings facing the street and parking in the rear. The site plan options that follow test four different building prototypes on this section: single-loaded corridor, single-loaded courtyard, multiplex and double loaded-corridor buildings. All plans show the western building fronting onto a small park where the entry into the Civic Center is located. Another design option would be to use this space as public parking accessed from the Kuhio Highway.

Section B

Section B faces Eiwa Street where the existing Kaua'i Bus transit hub is located. It is currently a parking lot for County offices and the Kaua'i Museum which includes some electric vehicle infrastructure. It is adjacent to the Kaua'i Museum and across from the Civic Center Historic District.

This section of the site could be developed as a single parcel with buildings adjacent to Eiwa Street and parking in the rear. Three building types were tested on this section: single-loaded corridor, multiplex and double-loaded corridor buildings. If plans for a youth center materialize in the existing building, new buildings could be organized around a new public open space and vehicular drop-off loop in front of this youth center, as shown in Options B-3 and B-4.

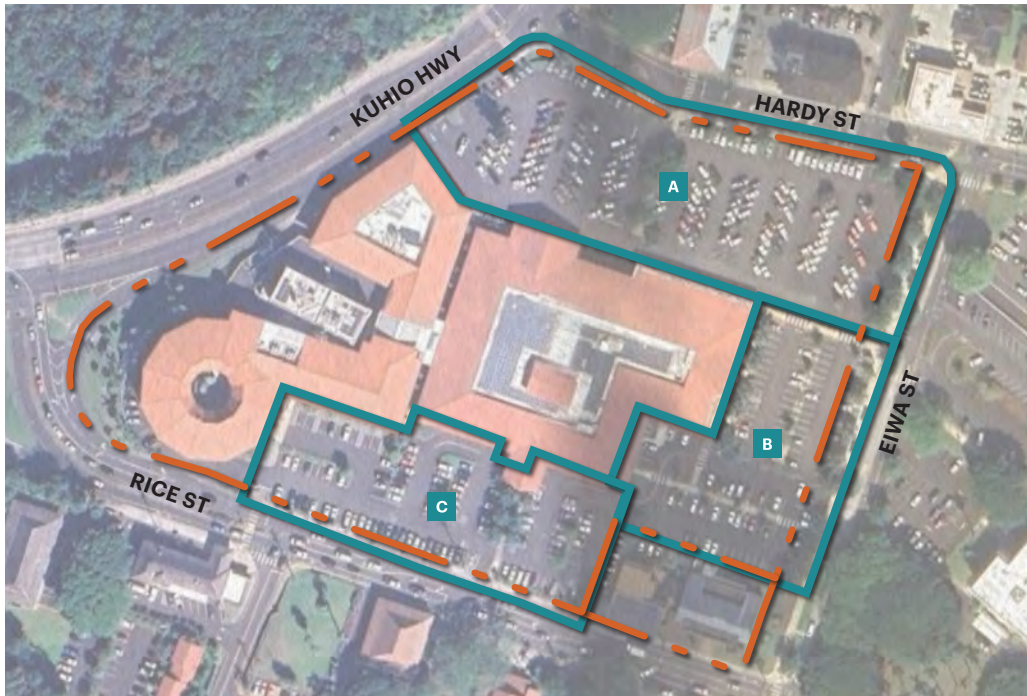
There is potential in some of these schemes to preserve public parking for the Kaua'i museum and other uses as needed.

Section C

Section C faces Rice Street, the main commercial street through the Lihu'e town core. It is currently a public parking lot, primarily serving the county offices but open to customers engaging in retail across the street. A shaded pathway connects the sidewalk to the Pi'ikoi Building entrance.

As this is a main access point to the County office buildings, all site plan options include some public parking in this section and preserve sightlines from Rice Street to the eastern building entrance.

Given most of the commercial buildings across the street are one story, low intensity buildings, this section tested the townhouse and multiplex buildings.



Site Key

- A Section A
- B Section B
- C Section C
- Civic Center Feasibility Study Area Boundary



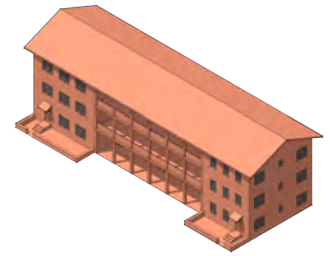
Section A Options



Legend

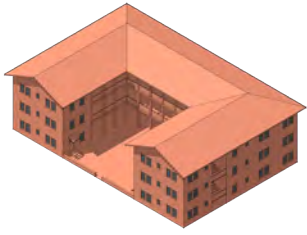
- A Civic Center Walkway
- B Transit Hub
- Section A Boundary

A-1 and A-2 Single-Loaded Corridor Buildings



A-1 Standard Unit Size Yield	
Site Area	1.9 ac
Total Units	60
Unit Mix (Multifamily)	
Studio	15 @ 500 sf
1 Bedroom	15 @ 750 sf
2 Bedroom	15 @ 900 sf
3 Bedroom	15 @ 1175 sf
Residential Surface Parking	116 spaces
Residential Garage Parking	0 spaces
Total Residential Parking	116 spaces
Residential Parking Ratio	1.9 spaces/unit
Public Parking Preserved	0 spaces
Density	31.6 du/ac

A-2 Small Unit Yield	
Site Area	1.9 ac
Total Units	105
Unit Mix (Multifamily)	
Studio	60 @ 250 sf
1 Bedroom	45 @ 350 sf
2 Bedroom	-
3 Bedroom	-
Residential Surface Parking	116 spaces
Residential Garage Parking	0 spaces
Total Residential Parking	116 spaces
Residential Parking Ratio	1.1 spaces/unit
Public Parking Preserved	0 spaces
Density	55.3 du/ac

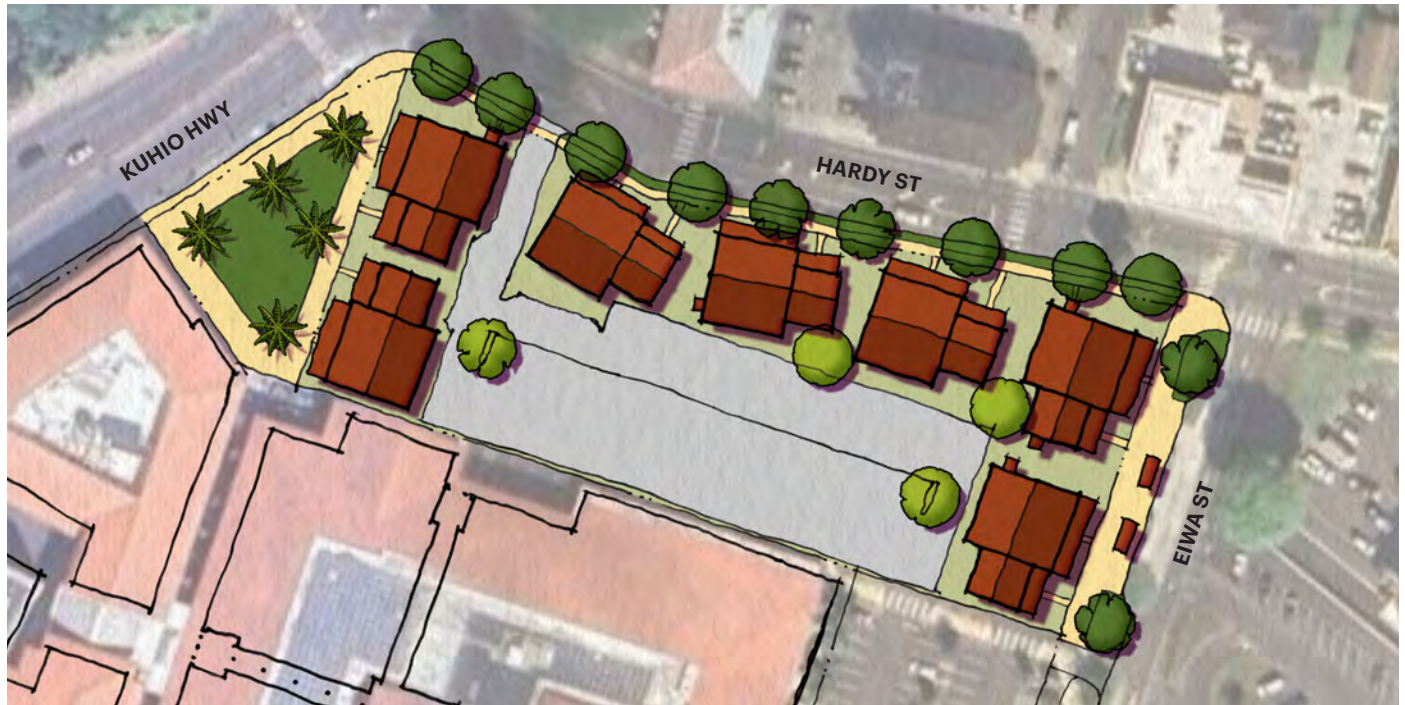
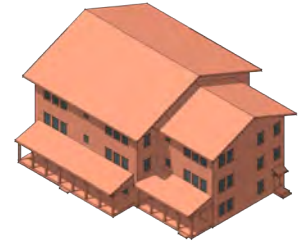


A-3 Single-Loaded Courtyard Buildings



A-3 Standard Unit Size Yield	
Site Area	1.9 ac
Total Units	63
Unit Mix (Multifamily)	
Studio	21 @ 500 sf
1 Bedroom	18 @ 750 sf
2 Bedroom	6 @ 900 sf
3 Bedroom	18 @ 1175 sf
Residential Surface Parking	78 spaces
Residential Garage Parking	0 spaces
Total Residential Parking	78 spaces
Residential Parking Ratio	1.2 spaces/unit
Public Parking Preserved	0 spaces
Density	33.2 du/ac

A-4 and A-5 Multiplex Buildings

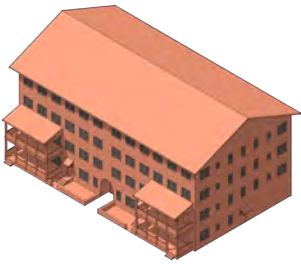


A-4 Standard Unit Size Yield	
Site Area	1.9 ac
Total Units	84
Unit Mix (Multifamily)	
Studio	21 @ 500 sf
1 Bedroom	21 @ 750 sf
2 Bedroom	21 @ 900 sf
3 Bedroom	21 @ 1250 sf
Residential Surface Parking	84 spaces
Residential Garage Parking	0 spaces
Total Residential Parking	84 spaces
Residential Parking Ratio	1.0 spaces/unit
Public Parking Preserved	0 spaces
Density	44.2 du/ac

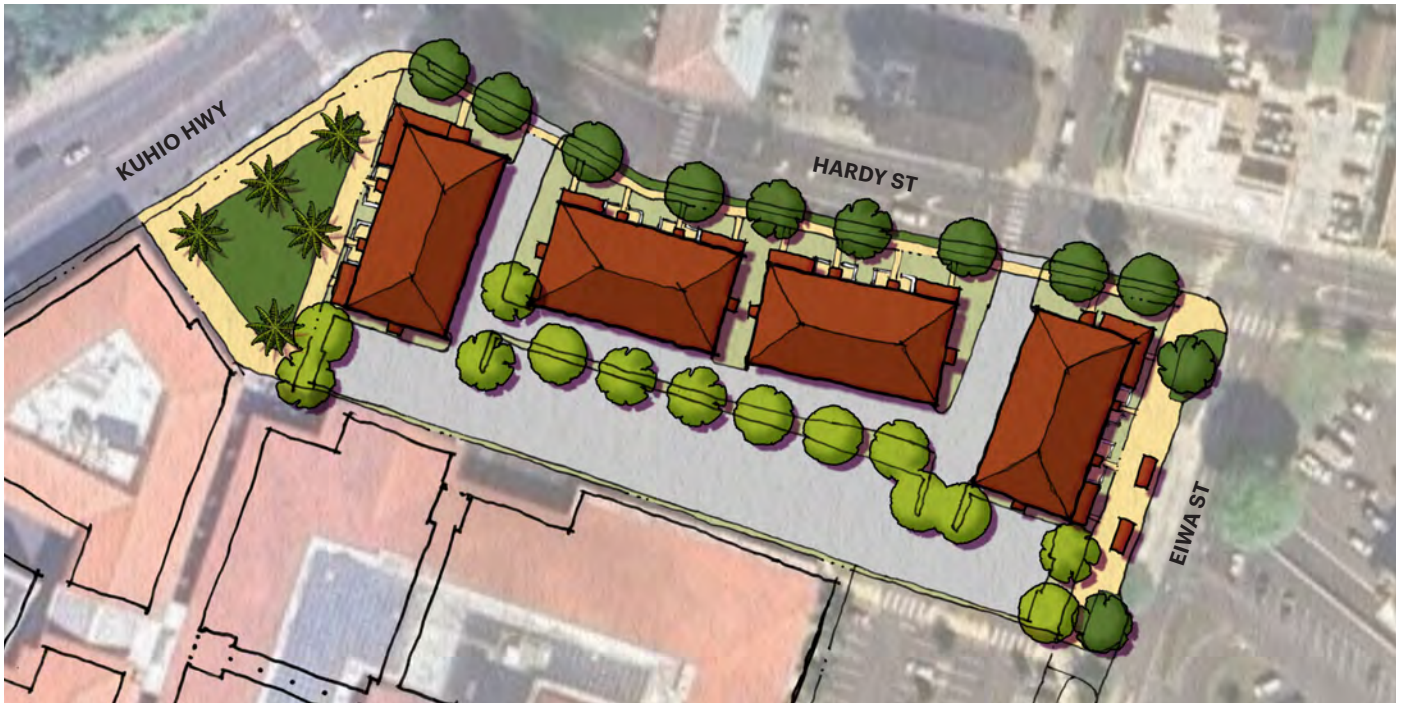
A-5 Small Unit Yield	
Site Area	1.9 ac
Total Units	90
Unit Mix (Multifamily)	
Studio	30 @ 370 sf
1 Bedroom	30 @ 540 sf
2 Bedroom	30 @ 700 sf
3 Bedroom	-
Residential Surface Parking	96 spaces
Residential Garage Parking	0 spaces
Total Residential Parking	96 spaces
Residential Parking Ratio	1.1 spaces/unit
Public Parking Preserved	0 spaces
Density	47.4 du/ac



Above: The small unit variation required an adjusted site plan



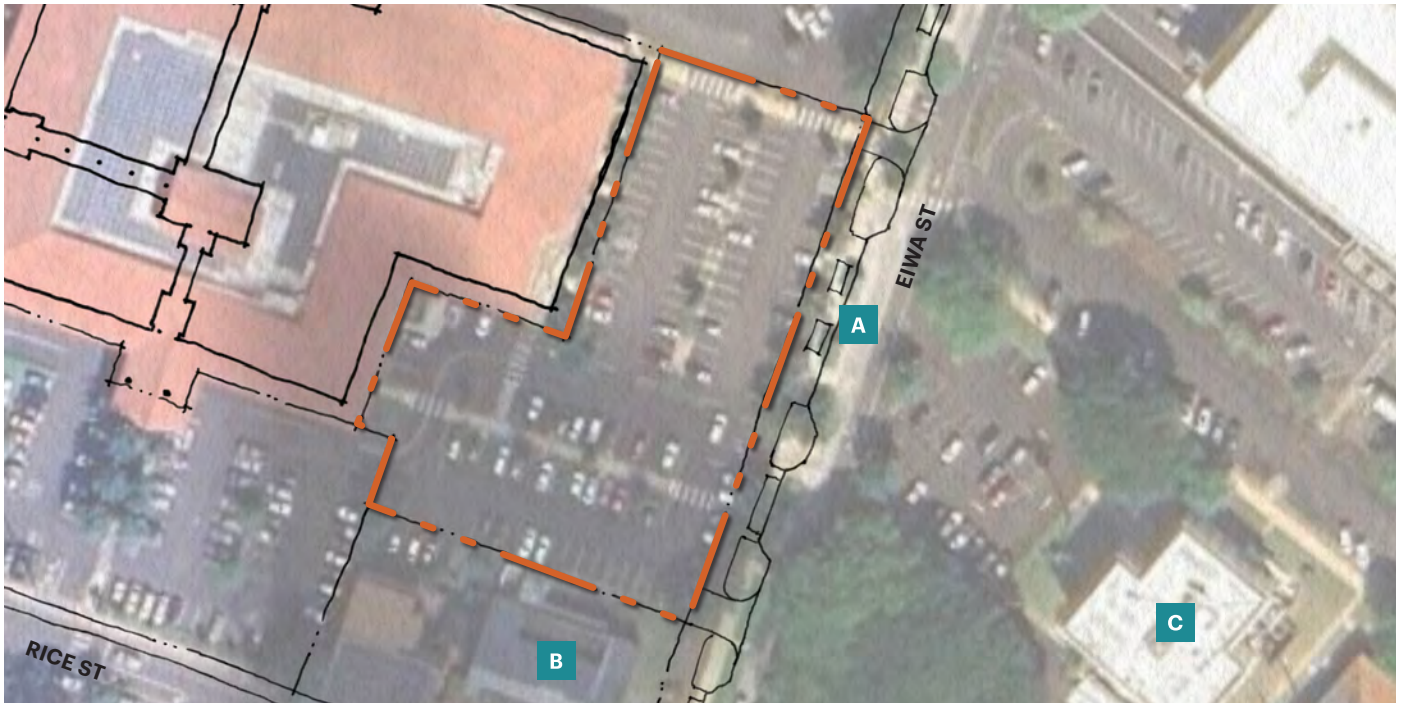
A-6 and A-7 Double-Loaded Corridor Buildings



A-6 Standard Unit Size Yield	
Site Area	1.9 ac
Total Units	84
Unit Mix (Multifamily)	
Studio	16 @ 550 sf
1 Bedroom	28 @ 750 sf
2 Bedroom	12 @ 950 sf
3 Bedroom	28 @ 1250 sf
Residential Surface Parking	72 spaces
Residential Tuck-under Parking	40 spaces
Total Residential Parking	112 spaces
Residential Parking Ratio	1.3 spaces/unit
Public Parking Preserved	0 spaces
Density	33.2 du/ac

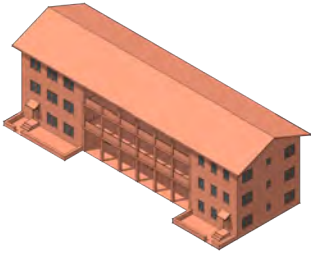
A-7 Small Unit Yield	
Site Area	1.9 ac
Total Units	112
Unit Mix (Multifamily)	
Studio	44 @ 370 sf
1 Bedroom	48 @ 475 sf
2 Bedroom	20 @ 700 sf
3 Bedroom	-
Residential Surface Parking	72 spaces
Residential Tuck-under Parking	40 spaces
Total Residential Parking	112 spaces
Residential Parking Ratio	1.0 spaces/unit
Public Parking Preserved	0 spaces
Density	59.0 du/ac

Section B Options

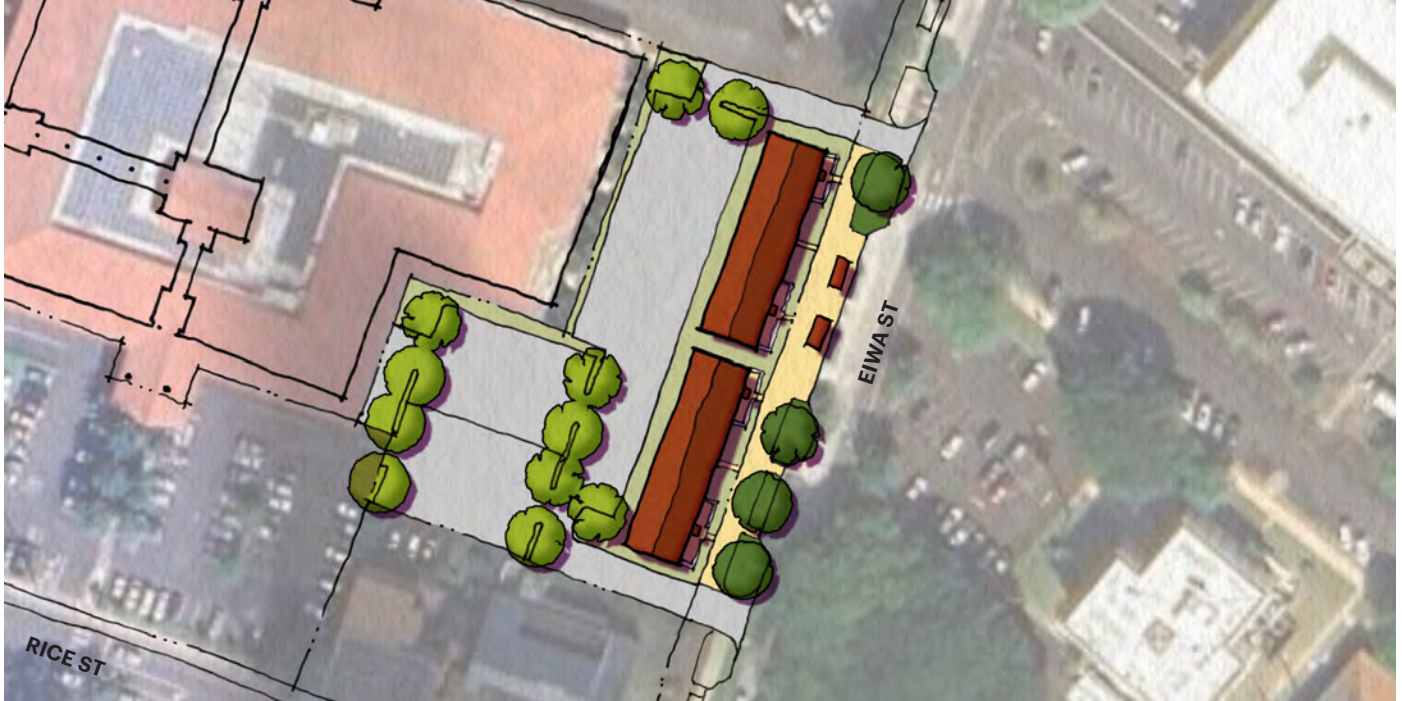


Legend

- A Transit Hub
- B Kaua'i Museum
- C Lihu'e Civic Center
Historic District
- Section B Boundary



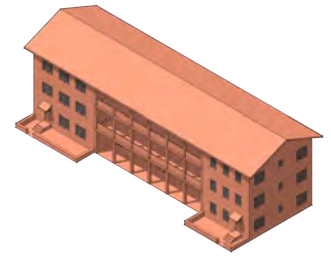
B-1 and B-2 Single-Loaded Corridor Buildings



B-1 Standard Unit Size Yield	
Site Area	1.1 ac
Total Units	24
Unit Mix (Multifamily)	
Studio	6 @ 500 sf
1 Bedroom	6 @ 750 sf
2 Bedroom	6 @ 900 sf
3 Bedroom	6 @ 1175 sf
Residential Surface Parking	24 spaces
Residential Garage Parking	0 spaces
Total Residential Parking	24 spaces
Residential Parking Ratio	1.0 spaces/unit
Public Parking Preserved	51 spaces
Density	22.6 du/ac

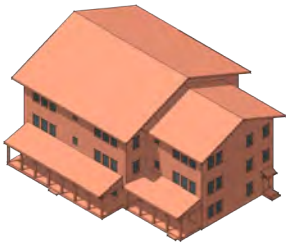
B-2 Small Unit Yield	
Site Area	1.1 ac
Total Units	42
Unit Mix (Multifamily)	
Studio	24 @ 250 sf
1 Bedroom	18 @ 350 sf
2 Bedroom	-
3 Bedroom	-
Residential Surface Parking	42 spaces
Residential Garage Parking	0 spaces
Total Residential Parking	42 spaces
Residential Parking Ratio	1.0 spaces/unit
Public Parking Preserved	33 spaces
Density	39.6 du/ac

B-3 and B-4 Single-Loaded Corridor Buildings with Open Space



B-3 Standard Unit Size Yield	
Site Area	1.1 ac
Total Units	27
Unit Mix (Multifamily)	
Studio	-
1 Bedroom	9 @ 700 sf
2 Bedroom	9 @ 875 sf
3 Bedroom	9 @ 1120 sf
Residential Surface Parking	27 spaces
Residential Garage Parking	0 spaces
Total Residential Parking	27 spaces
Residential Parking Ratio	1.0 spaces/unit
Public Parking Preserved	19 spaces
Density	25.5 du/ac

B-4 Small Unit Yield	
Site Area	1.1 ac
Total Units	45
Unit Mix (Multifamily)	
Studio	18 @ 250 sf
1 Bedroom	27 @ 350 sf
2 Bedroom	-
3 Bedroom	-
Residential Surface Parking	45 spaces
Residential Garage Parking	0 spaces
Total Residential Parking	45 spaces
Residential Parking Ratio	1.0 spaces/unit
Public Parking Preserved	1 spaces
Density	42.5 du/ac



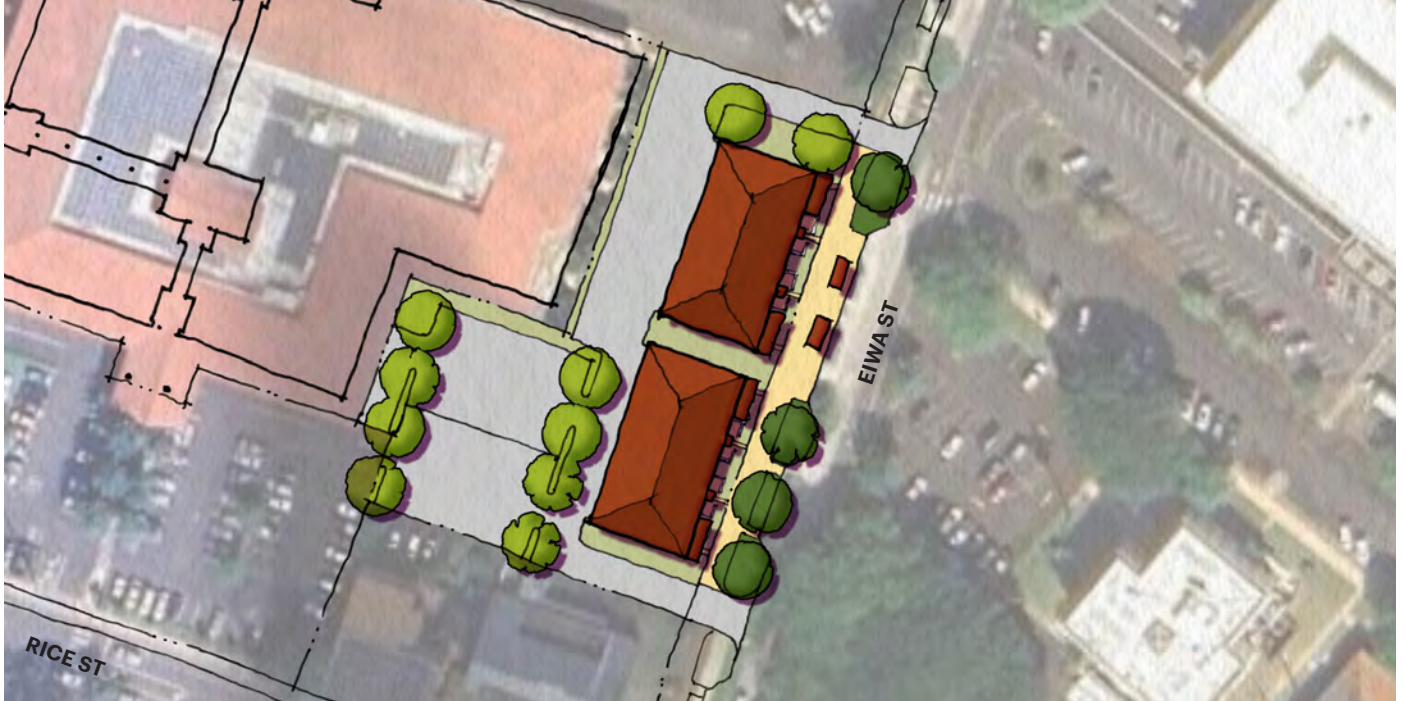
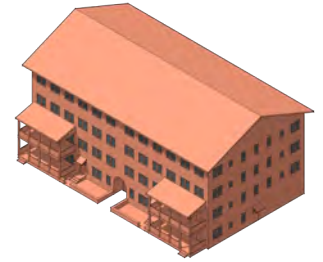
B-5 and B-6 Multiplex Buildings



B-5 Standard Unit Size Yield	
Site Area	1.1 ac
Total Units	36
Unit Mix (Multifamily)	
Studio	9 @ 500 sf
1 Bedroom	9 @ 745 sf
2 Bedroom	9 @ 900 sf
3 Bedroom	9 @ 1250 sf
Residential Surface Parking	36 spaces
Residential Garage Parking	0 spaces
Total Residential Parking	36 spaces
Residential Parking Ratio	1.0 spaces/unit
Public Parking Preserved	15 spaces
Density	34.0 du/ac

B-6 Small Unit Yield	
Site Area	1.1 ac
Total Units	45
Unit Mix (Multifamily)	
Studio	18 @ 370 sf
1 Bedroom	18 @ 540 sf
2 Bedroom	18 @ 700 sf
3 Bedroom	-
Residential Surface Parking	54 spaces
Residential Garage Parking	0 spaces
Total Residential Parking	54 spaces
Residential Parking Ratio	1.0 spaces/unit
Public Parking Preserved	0 spaces
Density	50.9 du/ac

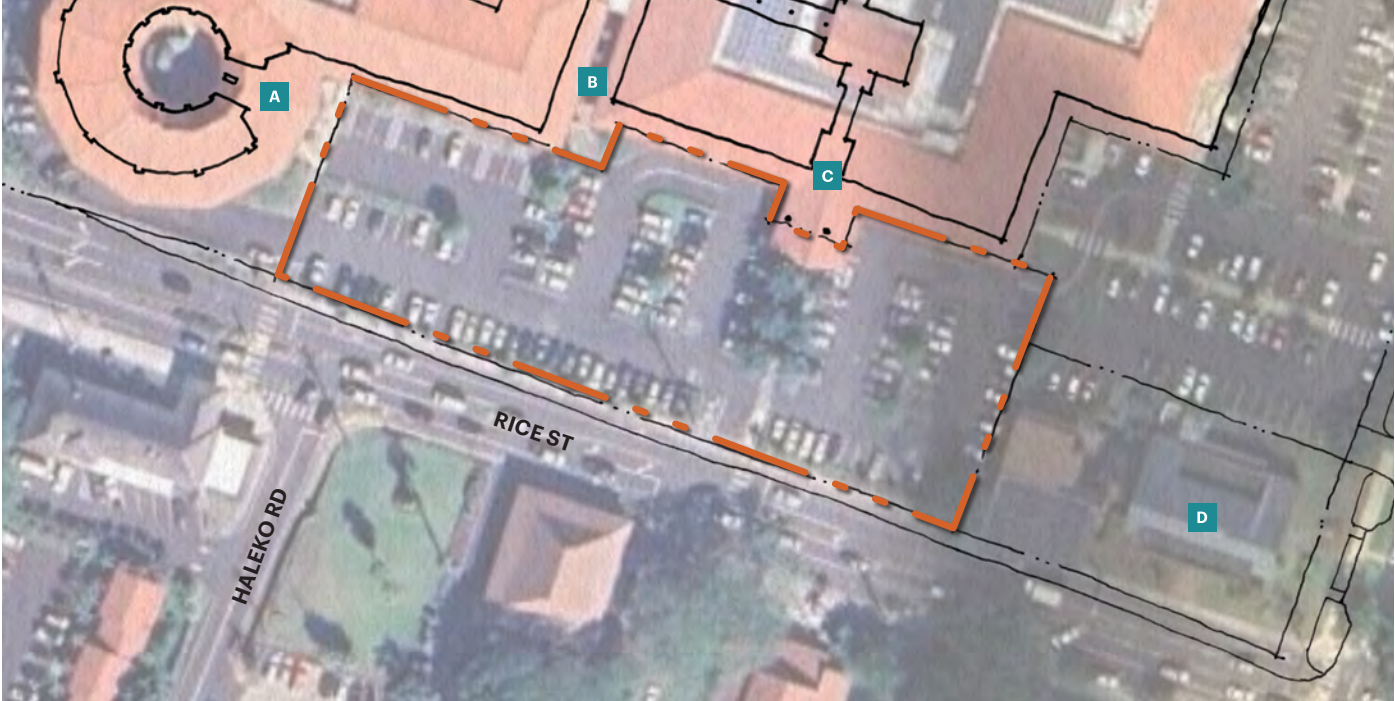
B-7 and B-8 Double-Loaded Corridor Buildings




B-7 Standard Unit Size Yield	
Site Area	1.1 ac
Total Units	42
Unit Mix (Multifamily)	
Studio	8 @ 550 sf
1 Bedroom	14 @ 750 sf
2 Bedroom	6 @ 950 sf
3 Bedroom	14 @ 1250 sf
Residential Surface Parking	22 spaces
Residential Tuck-under Parking	20 spaces
Total Residential Parking	42 spaces
Residential Parking Ratio	1.0 spaces/unit
Public Parking Preserved	29 spaces
Density	39.6 du/ac

B-8 Small Unit Yield	
Site Area	1.1 ac
Total Units	56
Unit Mix (Multifamily)	
Studio	22 @ 370 sf
1 Bedroom	24 @ 475 sf
2 Bedroom	10 @ 700 sf
3 Bedroom	-
Residential Surface Parking	36 spaces
Residential Tuck-under Parking	20 spaces
Total Residential Parking	56 spaces
Residential Parking Ratio	1.0 spaces/unit
Public Parking Preserved	15 spaces
Density	52.8 du/ac

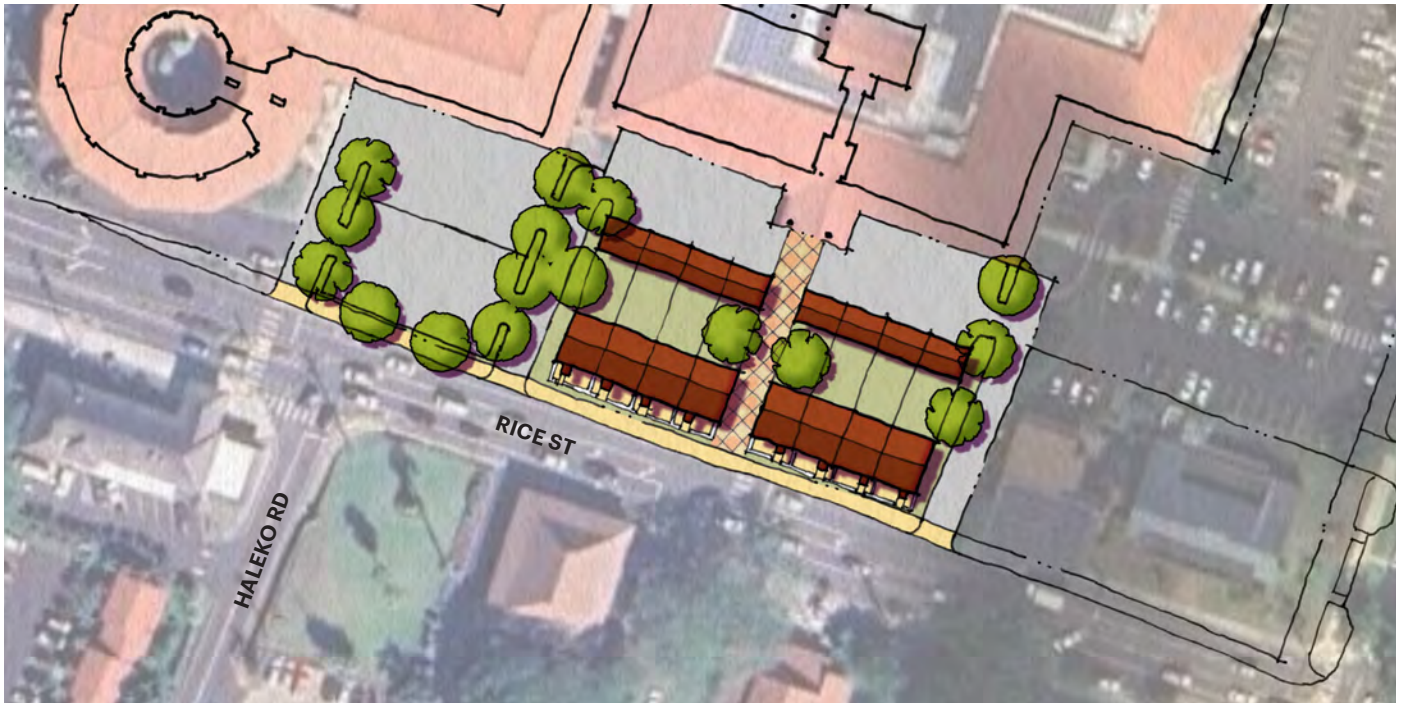
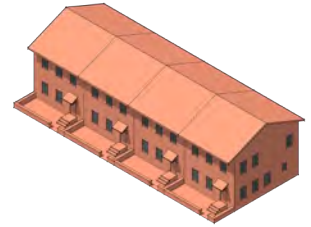
Section C Options



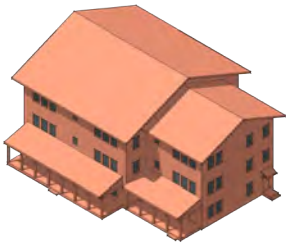
Legend

- A** Mo'ikeha Building Entrance
- B** Civic Center Walkway
- C** Pi'ikoi Building Entrance
- D** Kaua'i Museum
-  Section C Boundary

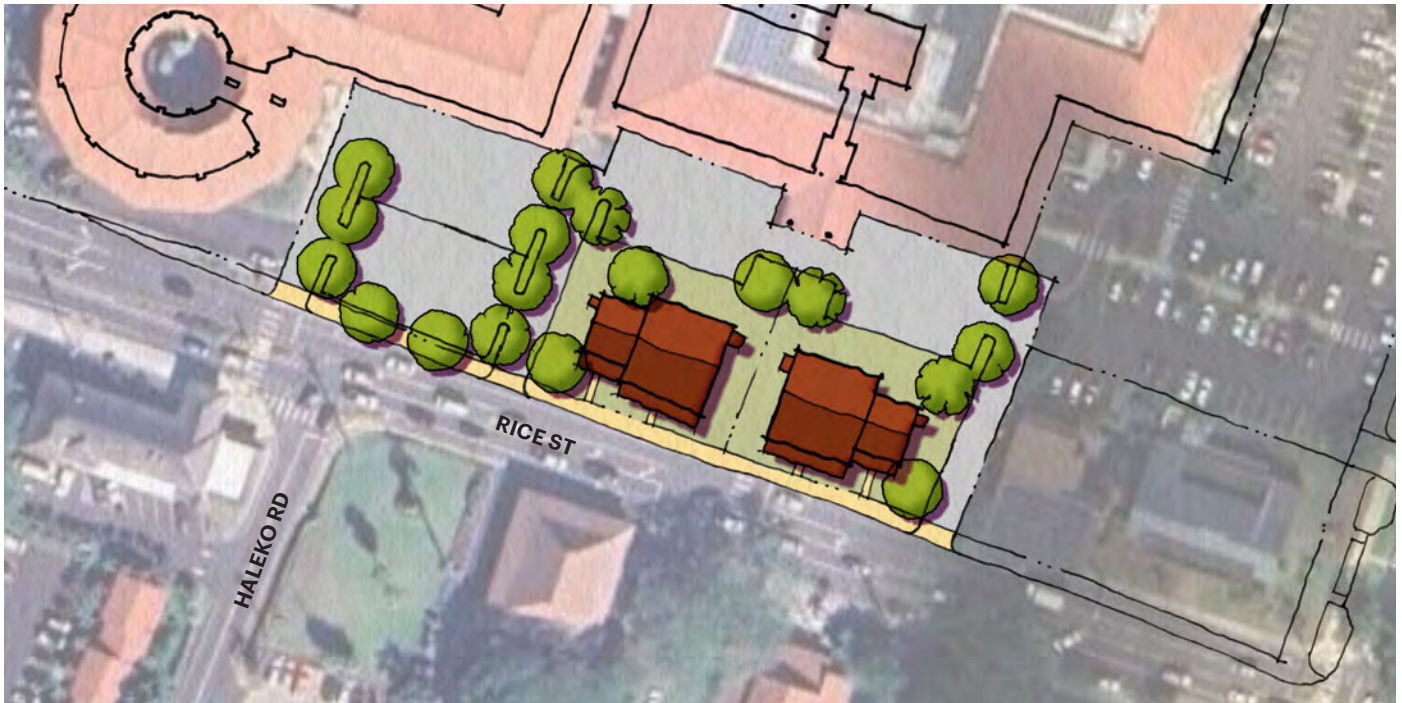
C-1 Townhouse Buildings



C-1 Standard Unit Size Yield	
Site Area	0.6 ac
Total Units	8
Unit Mix (Single Family)	
Studio	-
1 Bedroom	-
2 Bedroom	-
3 Bedroom	8 @ 1600 sf
Residential Surface Parking	0 spaces
Residential Garage Parking	16 spaces
Total Residential Parking	16 spaces
Residential Parking Ratio	2.0 spaces/unit
Public Parking Preserved	62 spaces
Density	13.3du/ac



C-2 and C-3 Multiplex Buildings



C-2 Standard Unit Size Yield	
Site Area	0.8 ac
Total Units	24
Unit Mix (Multifamily)	
Studio	6 @ 500 sf
1 Bedroom	6 @ 745 sf
2 Bedroom	6 @ 900 sf
3 Bedroom	6 @ 1250 sf
Residential Surface Parking	24 spaces
Residential Garage Parking	0 spaces
Total Residential Parking	24 spaces
Residential Parking Ratio	1.0 spaces/unit
Public Parking Preserved	56 spaces
Density	30.0 du/ac

C-3 Small Unit Yield	
Site Area	0.8 ac
Total Units	36
Unit Mix (Multifamily)	
Studio	12 @ 370 sf
1 Bedroom	12 @ 540 sf
2 Bedroom	12 @ 700 sf
3 Bedroom	-
Residential Surface Parking	36 spaces
Residential Garage Parking	0 spaces
Total Residential Parking	36 spaces
Residential Parking Ratio	1.0 spaces/unit
Public Parking Preserved	43 spaces
Density	45.0 du/ac

Site Plan Alternatives

Low Residential Yield (95 units)



Program Summary

Site Area	3.6 ac
Total Units	95
Unit Mix	
Studio	27 @ 500 sf
1 Bedroom	24 @ 700-750 sf
2 Bedroom	12 @ 900 sf
3 Bedroom	32 @ 1175-1600 sf
Residential Surface Parking	102 spaces
Garage Parking	16 spaces
Total Residential Parking	118 spaces
Residential Parking Ratio	1.2 spaces/unit
Public Parking Relocated	386 spaces
Density	26.4 du/ac

Overview

The Low Residential Yield alternative represents a low-intensity development option on this site. Because of this lower intensity, this alternative is able to provide more than the minimum of one parking space per unit.

The Low Residential Yield alternative combines the following options:

Section A: Option A-3 (63 units)

Section B: Option B-1 (24 units)

Section C: Option C-1 (8 units)

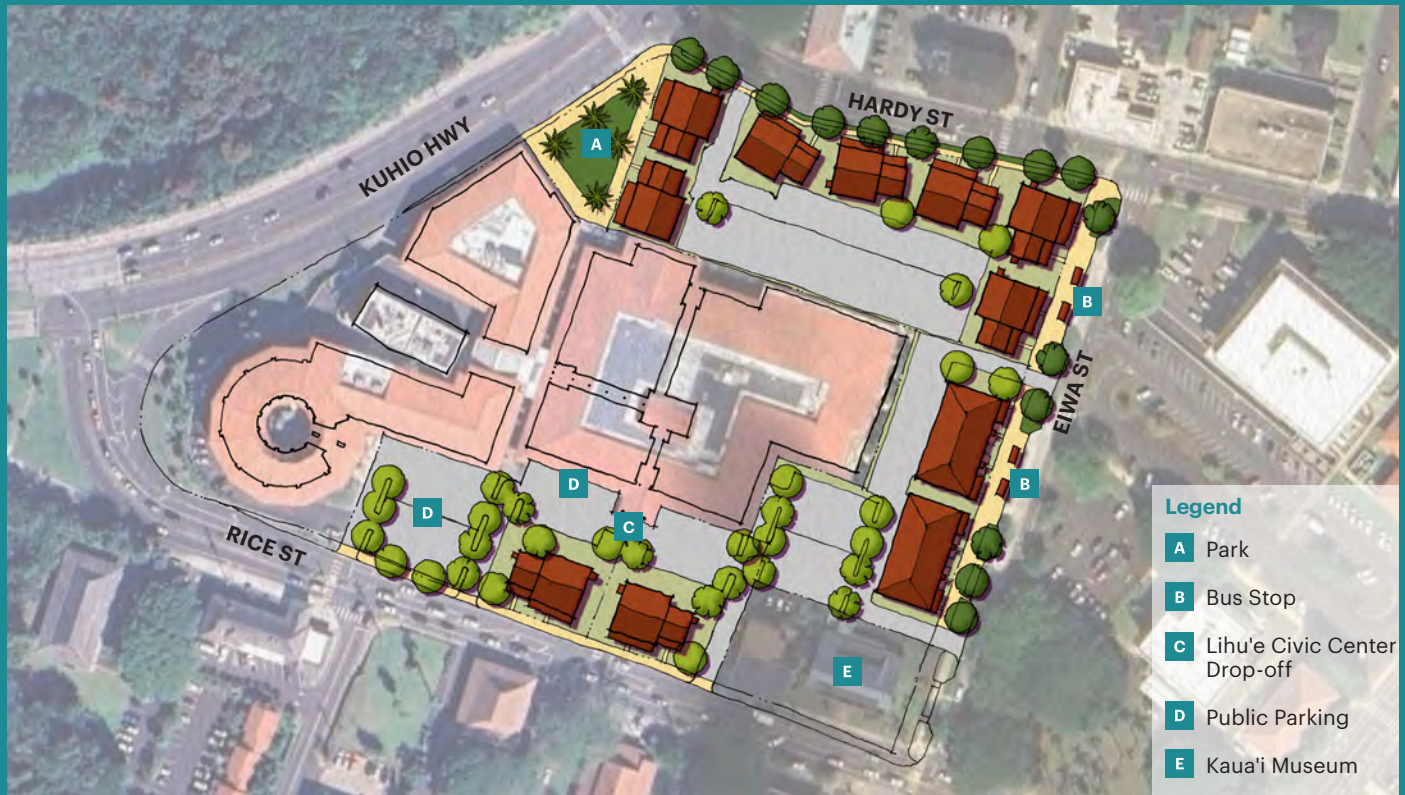
Financial Feasibility

60% AMI: Requires \$27 million in gap financing to achieve feasibility. Note that there are more funding tools available for 60% AMI development than for development at higher income levels.

80% AMI: Requires gap financing of \$23 million to achieve feasibility.

120% AMI: Requires gap financing of \$11 million to achieve feasibility.

Medium Residential Yield (150 units)



Overview

The Medium Residential Yield alternative represents the maximized development potential using standard unit sizes as opposed to below-average unit sizes. This option provides the minimum of one parking space per unit.

The Medium Residential Yield alternative combines the following options:

Section A: Option A-4 (84 units)

Section B: Option B-7 (42 units)

Section C: Option C-2 (24 units)

Financial Feasibility

60% AMI: Requires \$23 million in gap financing to achieve feasibility. Note that there are more funding tools available for 60% AMI development than for development at higher income levels.

80% AMI: Requires gap financing of \$19 million to achieve feasibility.

120% AMI: Requires gap financing of \$7 million to achieve feasibility.

Program Summary

Site Area	3.8 ac
Total Units	150
Unit Mix	
Studio	35 @ 500 sf
1 Bedroom	41 @ 700-750 sf
2 Bedroom	33 @ 900 sf
3 Bedroom	41 @ 1175-1600 sf
Residential Surface Parking	130 spaces
Tuck-under Parking	20 spaces
Total Residential Parking	150 spaces
Residential Parking Ratio	1.0 spaces/unit
Public Parking Relocated	396 spaces
Density	41.7 du/ac

High Residential Yield (204 units)



Program Summary

Site Area	3.8 ac
Total Units	204
Unit Mix	
Studio	78 @ 500 sf
1 Bedroom	84 @ 700-750 sf
2 Bedroom	42 @ 900 sf
Residential Surface Parking	144 spaces
Tuck-under Parking	60 spaces
Total Residential Parking	204 spaces
Residential Parking Ratio	1.0 spaces/unit
Public Parking Relocated	422 spaces
Density	53.7 du/ac

Overview

The High Residential Yield alternative represents the maximum development potential if providing units with reduced square footage while retaining a minimum of one parking space per unit.

The High Residential Yield alternative combines the following options:

Section A: Option A-7 (112 units)

Section B: Option B-8 (56 units)

Section C: Option C-3 (36 units)

Financial Feasibility

60% AMI: Requires \$25 million in gap financing to achieve feasibility. Note that there are more funding tools available for 60% AMI development than for development at higher income levels.

80% AMI: Requires gap financing of \$19 million to achieve feasibility.

120% AMI: Feasible without requiring any gap financing.





7-Story Height Scenario

CHAPTER
3

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7-Story Height Scenario Overview


In response to stakeholder requests to evaluate a taller and more intense building, the consultant team developed a 7-story podium building prototype to test for feasibility on the Civic Center site.

"Pros" of Scenario Two

This type would remove less surface parking, leaving it in place for County use. Because the seven story prototype is more intense than the 3-4 story prototypes, it could yield a given unit count on a smaller area of the Civic Center site.

on this site. Increasing the building size to this 7-story scale does not improve the financial performance. In addition, this is not a common building prototype in the County, so it is unknown whether there are developers who would be interested in building this construction type at this location.

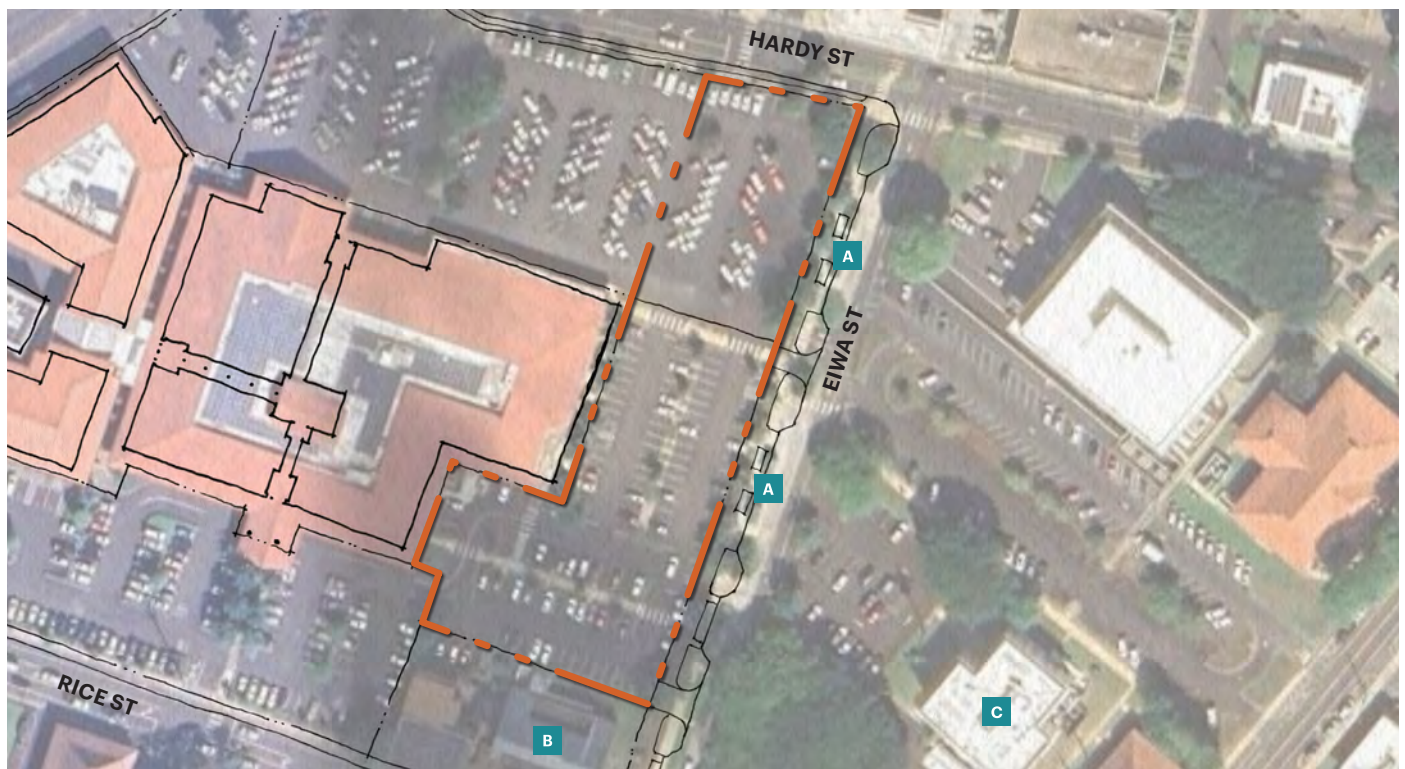
Legend

- A** Transit Hub
- B** Kua'i Museum
- C** Lihu'e Civic Center Historic District
-  Section Boundary

"Cons" of Scenario Two

The scale of this building type is not included in any preexisting vision for the Civic Center site nor for any neighborhood in the Lihu'e Town Core.

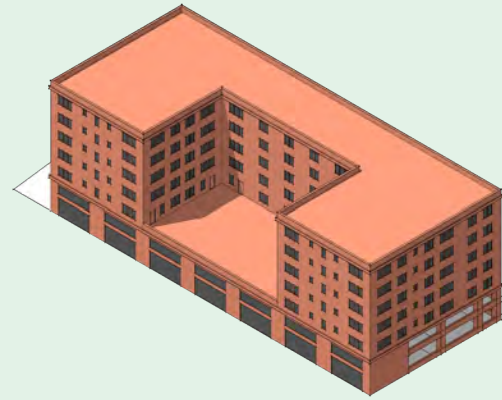
The feasibility results for this prototype are similar to the 3-4 story prototypes tested



Podium Building Prototype



Credit: Trachtenberg Architects



The podium building type contains 80 residential units with structured parking. The construction is five-over-two (five stories of Type VA construction over two stories of Type IA construction). The first and second floor constitute the podium and include structured parking and amenity spaces. The five stories over the podium include a mix of studio, one bedroom, and two bedroom units. In addition to the residential units over the podium there is a common open space accessible to residents. While it is a very efficient building type, it is not very common in Kaua'i, perhaps because its design does not offer cross-ventilation, which is a key passive cooling tool to keep homes comfortable in Kaua'i's climate without relying on air conditioning.

At 60% AMI, this building type was not more feasible than most of the other building types tested.

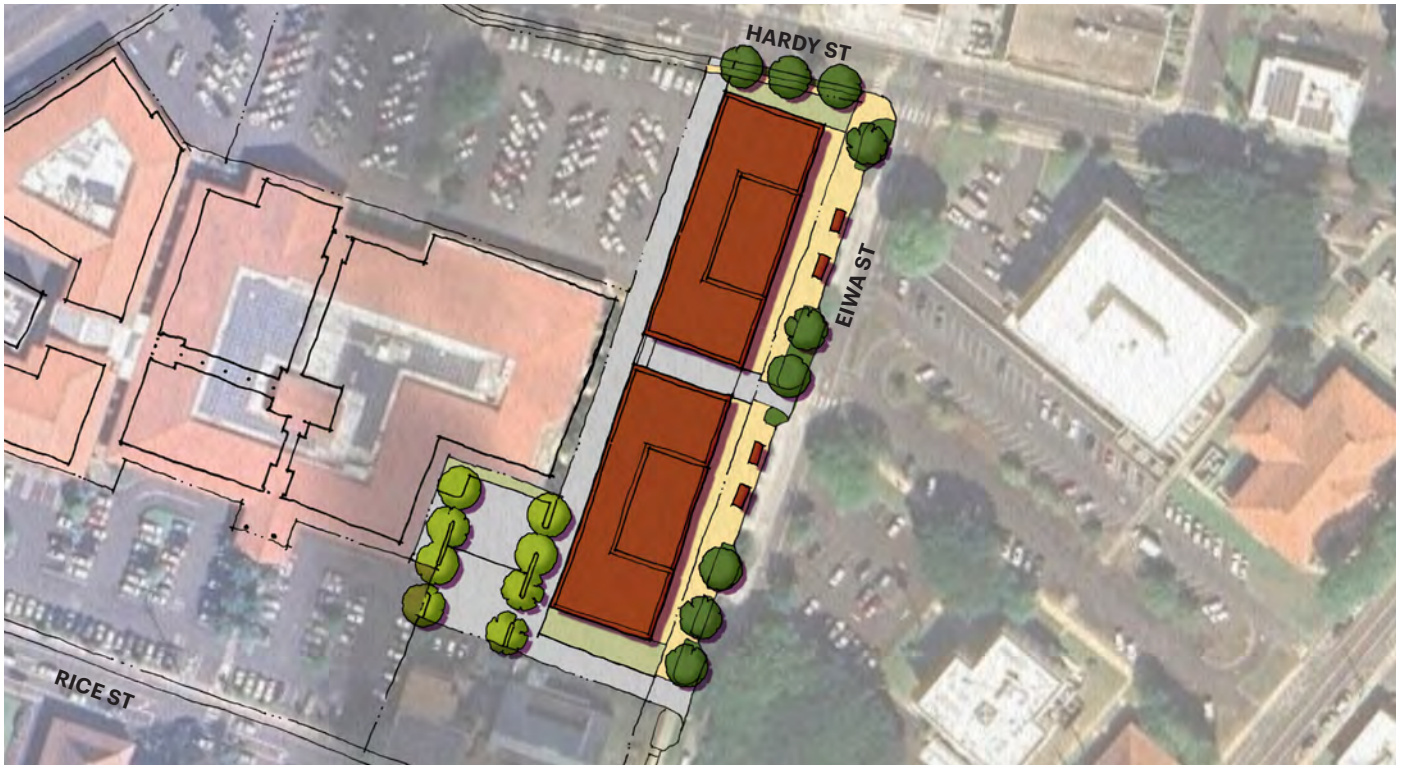
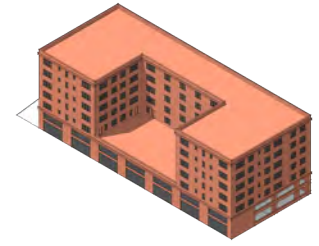
Program Summary

Total Units	80
Unit Mix	
Studio	25 @ 500 sf
1 Bedroom	30 @ 650 sf
2 Bedroom	25 @ 800 sf
Height	7 stories
Building Footprint	207' x 85'

Financing Gap per Unit

60% AMI	\$400,881 gap
Market Rate	\$86,824 gap
Mixed Income (20% BMR)	\$135,235 gap

Site Plan Option (160 units)



Overview

The 7-story podium site plan option achieves a high unit yield on a limited portion of the site while removing less surface parking than any of the other development scenarios. The downside of this approach is that the development will not match the existing or envisioned form and character of the Town Core.

Stakeholders considered isolated development along Eiwa Street to be preferable, suggesting that this would be an appropriate place for housing.

Financial Feasibility

60% AMI: Requires \$64 million in gap financing to achieve feasibility. Note that there are more funding tools available for 60% AMI development than for development at higher income levels.

Market Rate: Requires gap financing of \$14 million to achieve feasibility.

Mixed Income (20% BMR): Requires gap financing of \$22 million to achieve feasibility.

Program Summary

Site Area	1.6 ac
Total Units	160
Unit Mix	
Studio	50 @ 500 sf
1 Bedroom	60 @ 650 sf
2 Bedroom	50 @ 800 sf
3 Bedroom	-
Residential Surface Parking	22 spaces
Structured Parking	138 spaces
Total Residential Parking	160 spaces
Residential Parking Ratio	1.0 spaces/unit
Public Parking Relocated	189 spaces
Density	100 du/ac

Considering Other Locations in the Town Core

While stakeholders were interested in evaluating the feasibility of a podium building prototype for this location, it is worth noting that this building type may have other, more suitable location options within the Town Core outside of this project’s study area.

Podium Prototype Basics

The podium building prototype is most efficient, and so most financially attractive to developers, when its floorplate can maximize a 75 ft high building envelope allowed for a "5-over-2" construction type (five stories of stick-frame construction over a two-story concrete podium) allowed by the International Building Code. The building type also typically meets all of its own parking needs with structured parking enclosed on its first two stories.

Eiwa Street Location Yields Inefficient Building

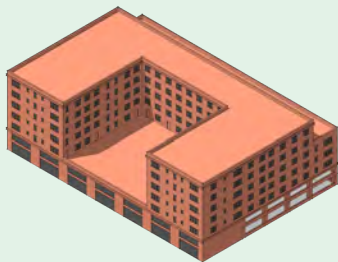
The Civic Center site along Eiwa Street where stakeholders asked to

see the podium building prototype is dimensionally less than ideal for a podium building. As configured on this site, the building cannot accommodate a one parking space per unit parking ratio for a seven story building program. The site's constrained depth results in a less efficient parking layout, resulting in some of the parking overflowing to surface parking as shown in the site plan on the facing page.

Considering Other Locations

Independent of considerations of form and character compatibility, the podium building prototype is not an ideal fit for the Civic Center site. However, the Town Core includes other potential infill sites where a podium building would be more successful. Preliminary pro forma analysis demonstrates that the feasibility of a podium building improves when tested in a more efficient configuration, shown below, that could fit elsewhere in the Town Core.

Alternative Podium Prototype

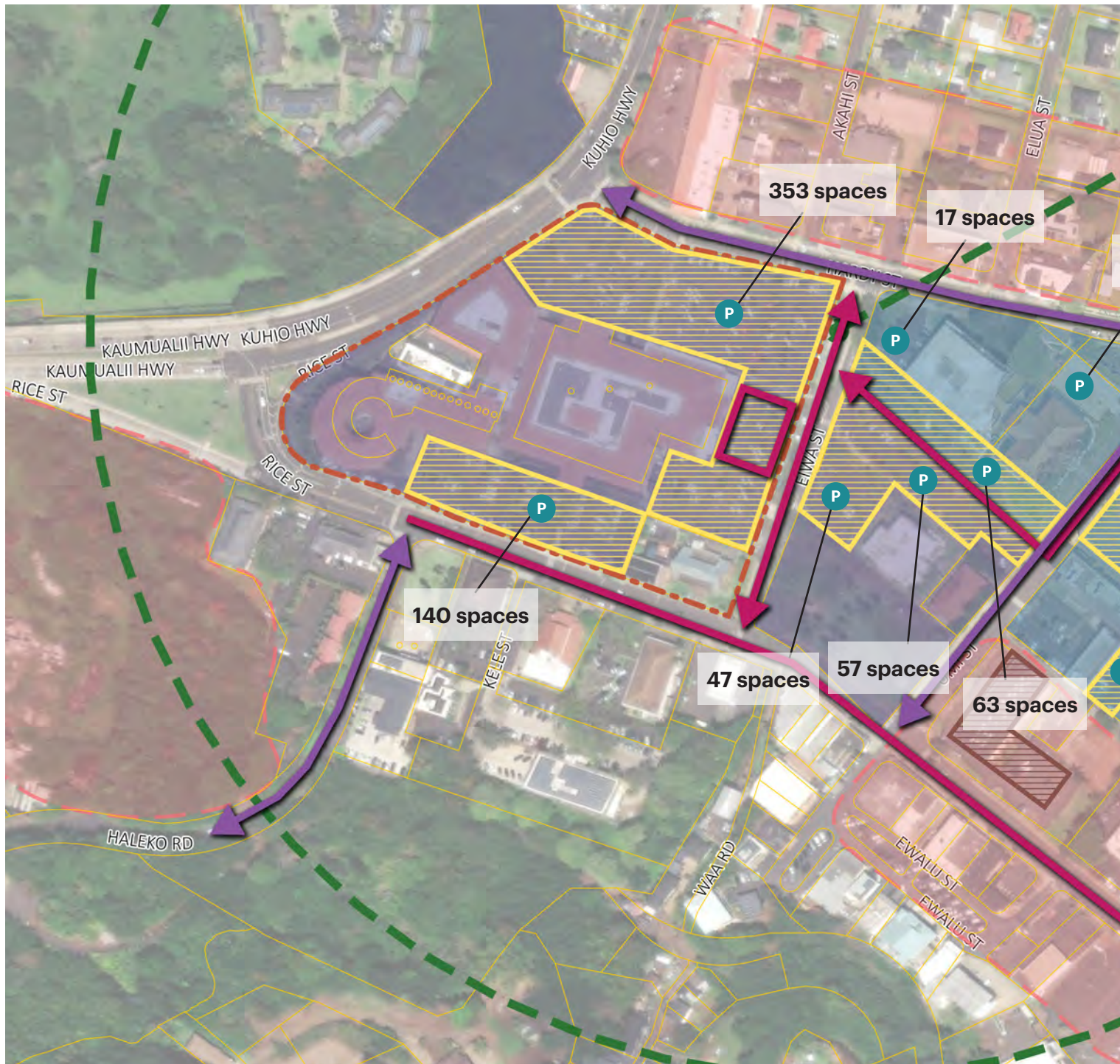


Program Summary	
Total Units	122
Height	7 stories
Building Footprint	210' x 145'
Financing Gap per Unit	
60% AMI	\$371,571 gap
Market Rate	\$82,665 gap
Mixed Income (20% BMR)	\$110,237 gap

This iteration of the podium building prototype, while not dimensionally suitable for the Civic Center site, shows improved financial feasibility and could be considered for other sites in the Town Core.

Town Core Housing Development Opportunities

Multiple sites in the area could offer opportunities for housing development, potentially bringing new energy to the Civic Center and Rice Street and sharing the benefits of a district-wide parking and infrastructure strategy as well as recent and planned transportation improvements.





Legend

-  Opportunity Sites
-  State-Owned Parcels
-  County-Owned Parcels
-  TIGER Projects
-  Non-TIGER transportation infrastructure improvements
-  Planned affordable housing development
-  Other housing opportunity sites
-  Existing Parking
-  5-minute walk radius ("ped shed")
-  Project Area Boundary

Scale 1" = 250'







Form and Character

CHAPTER

4

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Eiwa Street Conceptual Rendering	51
Section across Eiwa Street	52

Civic Center Form and Character Today



View of Historic County Building from Rice St.



State of Hawaii Government Building along Umi St.



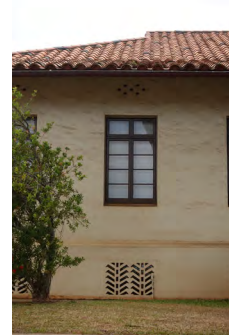
View of Kauai Museum from Rice St.



Kauai County Government Building



State of Hawaii Government Office Building



State of Hawaii Government Building

The context surrounding the Lihu'e Civic Center is primarily composed of one and two story historic government buildings that serve civic uses for the county of Kaua'i and the state of Hawaii. The character includes traditional architecture typically characterized by tiled, sloping roofs with deep overhangs.

Character Considerations

Introducing residential development on the Civic Center site would be a departure from the previous planning that has been done on the site since 2010, and would open up a discussion around a different future for this portion of the Civic Center.

The 2010 Town Core Urban Design plan envisioned the Civic Center Neighborhood to be preserved for civic uses. It was not considered an appropriate location for housing.

If residential uses were to be incorporated into the Civic Center, the new development would need to appropriately interface with the existing civic uses and properly address the form and character of the Civic Center as it exists today. This includes considerations regarding building height, massing, frontages, and architectural character.

Map Showing Proposed Amendment to Zoning Map ZM-LI-400 Special Planning Area (SPA) "D" Also Known As the "Rice Street Neighborhood"



Hardy Street Conceptual Rendering



Hardy Street Existing Conditions

The northern edge of the Civic Center site along Hardy Street is not defined by buildings. Rather, the edge of the site is a parking lot serving the Civic Center. This conceptual rendering depicts three story residential development along Hardy Street, utilizing the courtyard and single-loaded corridor building prototypes. Two story porch frontages act as a transition between the public realm and the private realm. The architectural details and materials reflect the traditional character of the surrounding context and are appropriate for the climate.



Eiwa Street Conceptual Rendering



Eiwa Street Existing Conditions

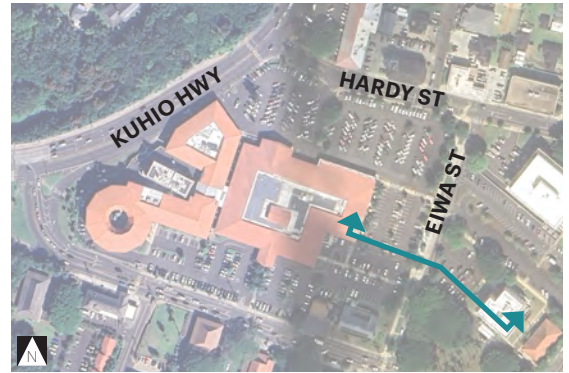
The eastern edge of the Civic Center site along Eiwa Street currently acts as a transportation hub. The Kaua'i Museum anchors the southeast corner, but the rest of the street is lined by a parking lot and is not defined by buildings. This conceptual rendering depicts three story residential development along Eiwa Street, utilizing the multiplex and single-loaded corridor building prototypes. One and two story porch frontages act as a transition between the public realm and the private realm. The architectural details and materials reflect the traditional character of the surrounding context and are appropriate for the climate.



Building Scale in Context

Legend

- A** Pi'ikoi Building
- B** Building Prototype
- C** Historic County Building



3D model showing 3-Story Multiplexes along Eiwa St.



Site Section Facing North: 3-Story Scenario along Eiwa Street



3D model showing 4-Story Double-Loaded Corridor buildings along Eiwa St.



Site Section Facing North: 4-Story Scenario along Eiwa Street



3D model showing 7-Story podium buildings along Eiwa St.



Site Section Facing North: 7-Story Scenario along Eiwa Street

These section drawings depict the form and scale of potential new residential development in the context of existing buildings at the Civic Center. The sections are cut across Eiwa Street and show the existing Civic Center building to the left, the existing Historic County building to the right, and a dotted line showing the profile of the Kaua'i Museum in the foreground. The profile of the state office building is in the background to the right and the facade of a two-story commercial building along Hardy Street is in the background to the left.

Some stakeholders felt that Eiwa Street would be an appropriate location to prioritize housing on this site. In particular,

they felt that more height could be achieved along Eiwa Street, potentially acting as a trade-off to leaving the rest of the Civic Center site undeveloped. The sections show the effect that increasing the height of the development from three to four to seven stories would have on the existing context. The buildings on the segments of Hardy Street, Eiwa Street, and Rice Street that border the Civic Center site are primarily one to two story commercial or civic buildings. Increasing the height for new development would be a departure from the existing form and character of the Lihu'e Town Core.



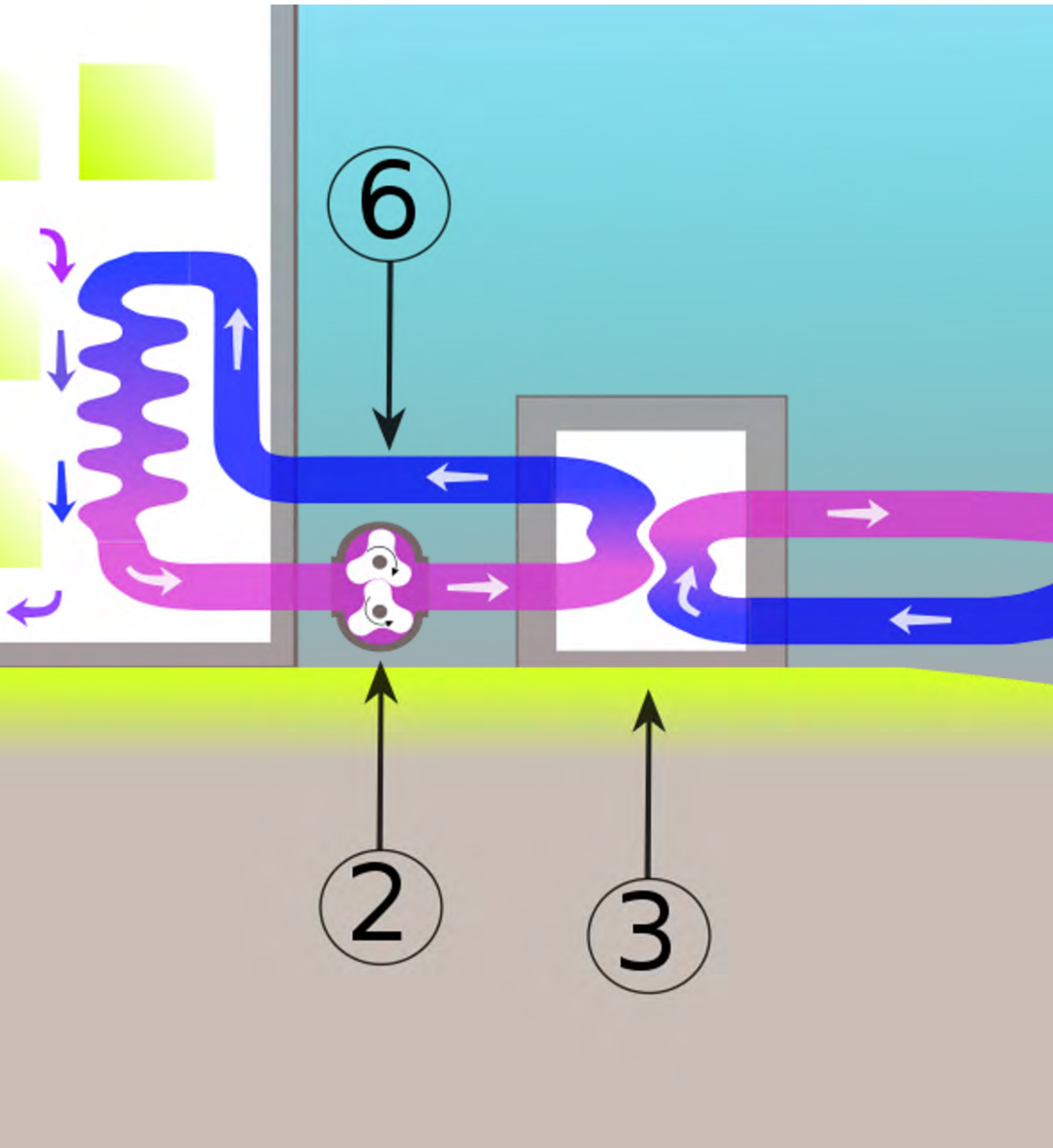
View of Eiwa St. looking South towards Rice St.



View of the Historic County Building from Eiwa St.



View of the State Office Building from Eiwa St.



Parking and Infrastructure Strategies

CHAPTER

5

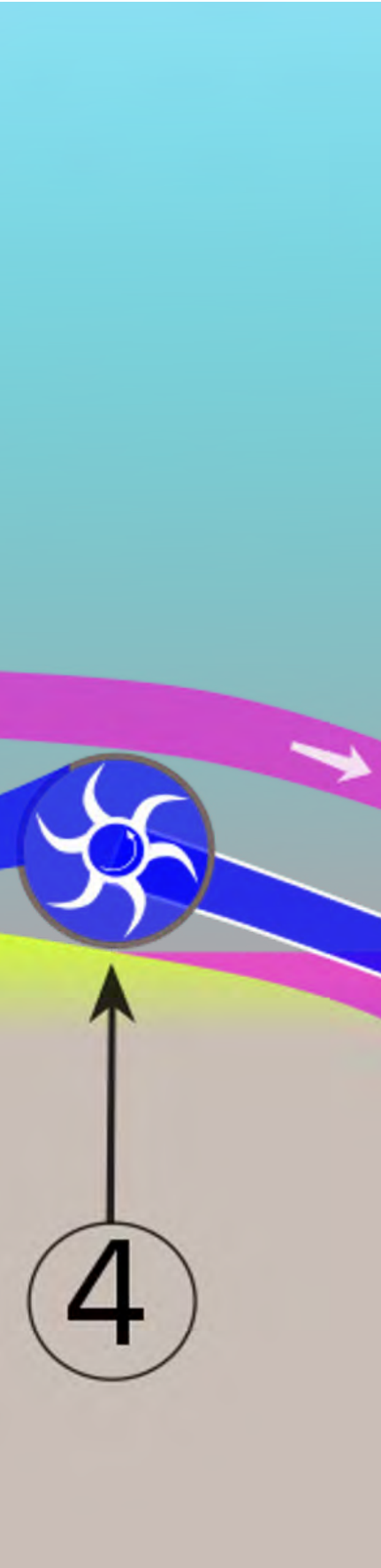
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Parking Strategies

If new residential development occurs on all or part of the existing Civic Center parking lot, what are potential strategies to move or replace parking? The following parking strategies for the Civic Center site align with recommendations from the 2023 Lihue Civic Center Mobility Plan.

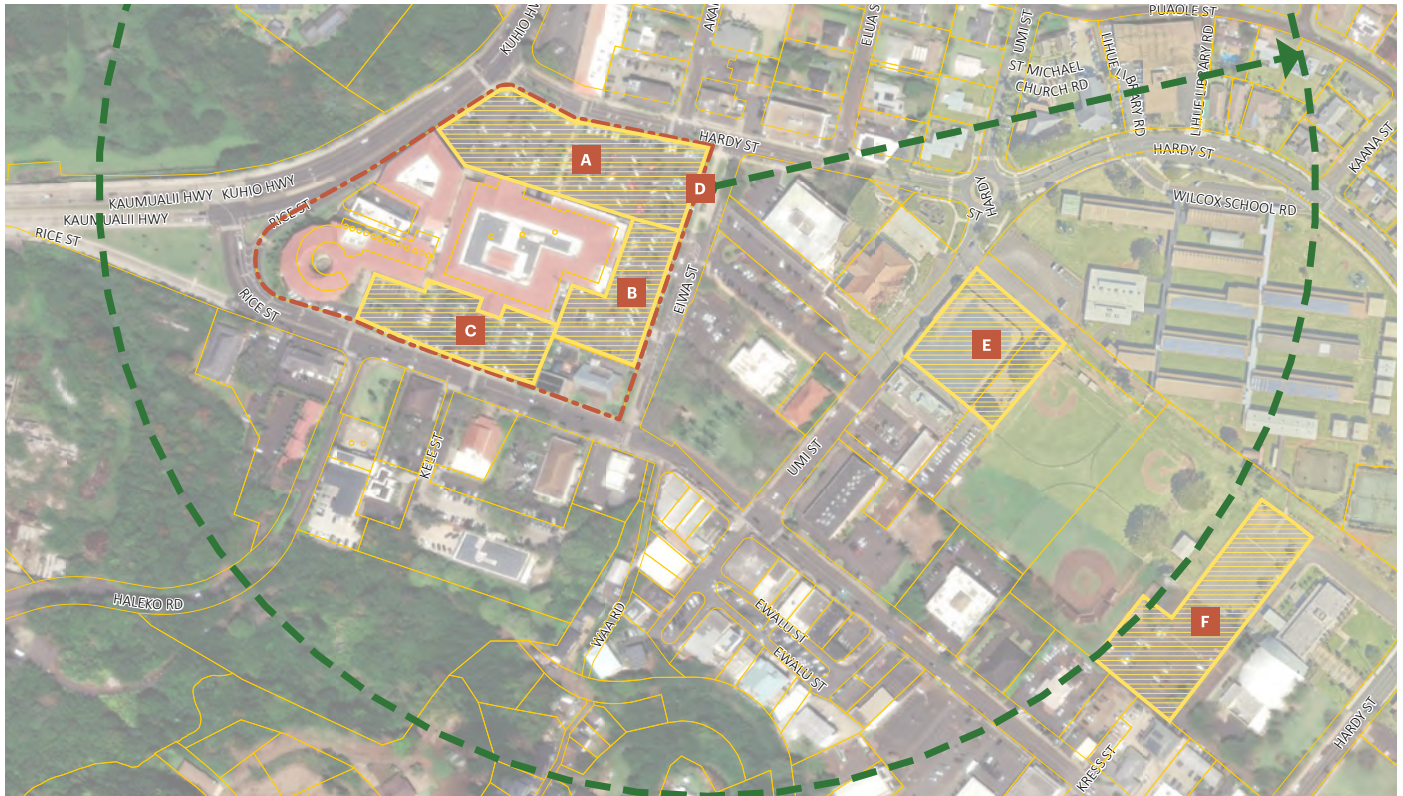
Move Employee Parking Offsite

If any of the Civic Center surface parking is replaced by new buildings, then the County will need to plan for alternate parking accommodations for some or all employees. The County recently invested in a multi-use pathway that connects the Civic Center site to multiple potential offsite parking locations. This sets up an opportunity for convenient access to alternative parking locations for County employees.

■ The full buildout of **Section A** would eliminate 353 County office building parking spaces. If Section A were built first, or if only Section A were built, then 235 parking spaces could be **moved to the convention center parking lot** and the remainder of the parking spaces could be shifted to the underutilized area of the parking lot in Section B. For more information on underutilized parking and parking management strategies, see the Lihue Civic Center Mobility Plan.

Below: Existing Civic Center surface parking lot





■ The full buildout of **Section B** would eliminate 129 public parking spaces. If Section B were built out, the County could consider **repurposing the old police station**, currently vacant, as public surface parking. This site could accommodate 126 spaces. Some of the existing surface parking in Section B supports the Kaua'i Museum. New development should prioritize dedicating some surface parking to the Kaua'i Museum; all but one site plan option presented for Section B includes some dedicated public parking for this purpose.

■ **Section C** includes 140 public parking spaces. As this is an existing visitor parking area and provides the most convenient access for visitors to the County office building—being just off of Rice Street and near the main office building entrances—it should be prioritized as a location for **public visitor parking in the future**. All site

plan options for Section C show some public visitor parking preserved (ranging from 43 to 62 spaces).

Consider Shared Parking

One strategy to optimize the use of onsite parking spaces is to institute a **shared parking policy**. This strategy, recommended by the Lihue Civic Center Mobility Plan, takes advantage of the fact that residents and employees need parking at different times of the day. Many residential parking spaces are empty during the workday when the residents have driven to work. These same parking spaces could be temporarily used by County employees during working hours and freed back up by the time residents arrive home from work. A shared parking policy would **reduce the need to move employee parking offsite** by making some spaces available to employees during the workday.

Legend

- A Section A
- B Section B
- C Section C
- D Transit Hub
- E Old Police Station
- F Convention Center Parking Lot
- - - Five Minute Walking Shed
- - - Civic Center Feasibility Study Area Boundary

Lean Into Alternative Mobility Choices

The Civic Center site is well-situated to take advantage of alternative mobility choices, which could reduce the demand for residential parking in new development. If residents need fewer parking spaces, then some of the surface parking could be preserved for employee use. Mobility alternatives recommended in the Lihu'e Civic Center Mobility Plan and suitable for this site include:

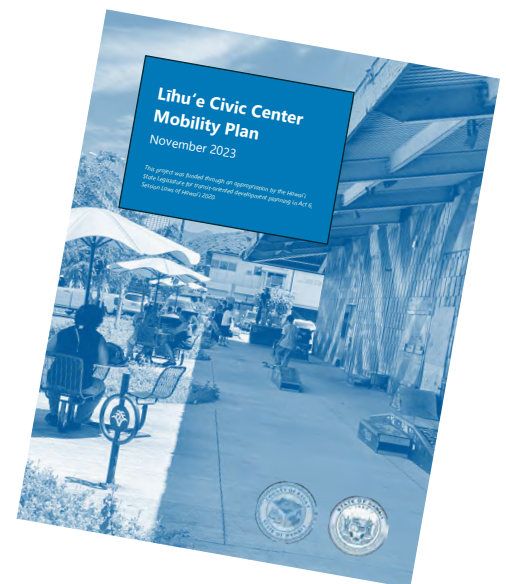
- The Kaua'i Bus, since the transit hub is adjacent to this site
- Walking and biking, since the amenities of the town core are a short walk or bike ride away
- Micromobility choices like electric scooters and e-bikes
- Car share, where a developer could partner with a carshare provider like Zipcar or Getaround to provide a fleet of vehicles onsite for residents to use on demand

If Needed in the Long-Term, Explore a Parking Structure

The Mobility Plan recommends a suite of tools, including improved parking management, to meet parking demands in the short term. If an influx of new development occurs in the Lihu'e Town Core and parking management of existing parking is no longer sufficient to meet demand, then the County could **explore the construction of a multi-story parking garage.** Dimensionally and locationally, the old police station site could be a suitable location for this structure. Integrated into a vision to open up the potential for more housing in the town core, the County could seek grant funding to help build this structure. This would then have the potential to serve the broader town core area and possibly open up additional opportunity sites for residential infill development.

Utilize Recommendations and Policies from Lihu'e Civic Center Mobility Plan

In addition to the preceding parking strategies that align with the Lihu'e Civic Center Mobility Plan, other design and policy recommendations from the Mobility Plan may be used to support transportation to and from the Civic Center site. The Mobility Plan includes design recommendations for public space improvements and pedestrian safety that would improve walkability and bikeability on and around the site. The Mobility Plan also includes policy recommendations for requiring Transportation Demand Management (TDM) for all new developments, setting parking utilization targets, managing existing parking more effectively through the Lihu'e Mobility Manager and Parking Benefit District, revising parking requirements, investing in bus drivers and operations staff, and eliminating barriers to shared mobility and spaces.



An "Ecodistrict" Approach to Infrastructure

Ecodistricts provide utility-level coordination and infrastructure to support sustainable and green infrastructure. Coordination can be in administration, financing, operations, issuing bonds, education and advertising, planning, or other areas to reduce the barrier to entry of sustainable infrastructure.

Ecodistrict Components

Ecodistricts may include any of the following components:

- Transportation
- Water (domestic, irrigation)
- Sewer (collection, treatment, graywater reuse)
- Rainwater Management
- Electricity (wind, solar, battery banks, other renewables)
- Heating/Cooling
- Gas
- Telecom

Ecodistrict Scale

Analysis for the Lihu'e Ecodistrict has three scales:

- Small: 100 units ("low" scenario for Civic Center infill development)
- Medium: 200 units ("high" scenario for Civic Center infill development)
- Large: 500 units (longer-range infill development throughout the Town Core)

Feasibility and financial estimates are detailed in the Ecodistrict Report.

Sewer Expansion

New housing in the Town Core should first use the existing sewer line capacity of about 480 units. Then the sewer lines should be expanded to support about 1,420 units. Only if expansion of the line is deemed infeasible, and after capacity is used, should a package plant be considered.



Ecodistrict scale can range from Civic Center infill (area shown in red) to longer-range infill throughout the Town Core



Existing sewer lines should be expanded once the existing sewer line capacity is reached





Graywater irrigation via rain garden

Graywater Reuse and Rainwater Capture

Graywater is water which comes from other sources than kitchens or toilets. The Uniform Plumbing Code in Hawaii allows graywater to be used for non-food irrigation, or, with disinfection, for reuse. Graywater irrigation is similar to rain gardens, allowing infiltration from domestic uses.



Example of solar panel grid supply

Solar Electricity

With enough site coverage, the electrical demand of the site can be met with on-site solar panels. Solar panels can be roof-mounted and owned by the development or by individual units. Alternatively, they can be utility owned as part of a grid supply or cooperatively owned by individuals on the grid, like Savio Solar on Oahu. Battery backup can also be per-unit or utility scale.

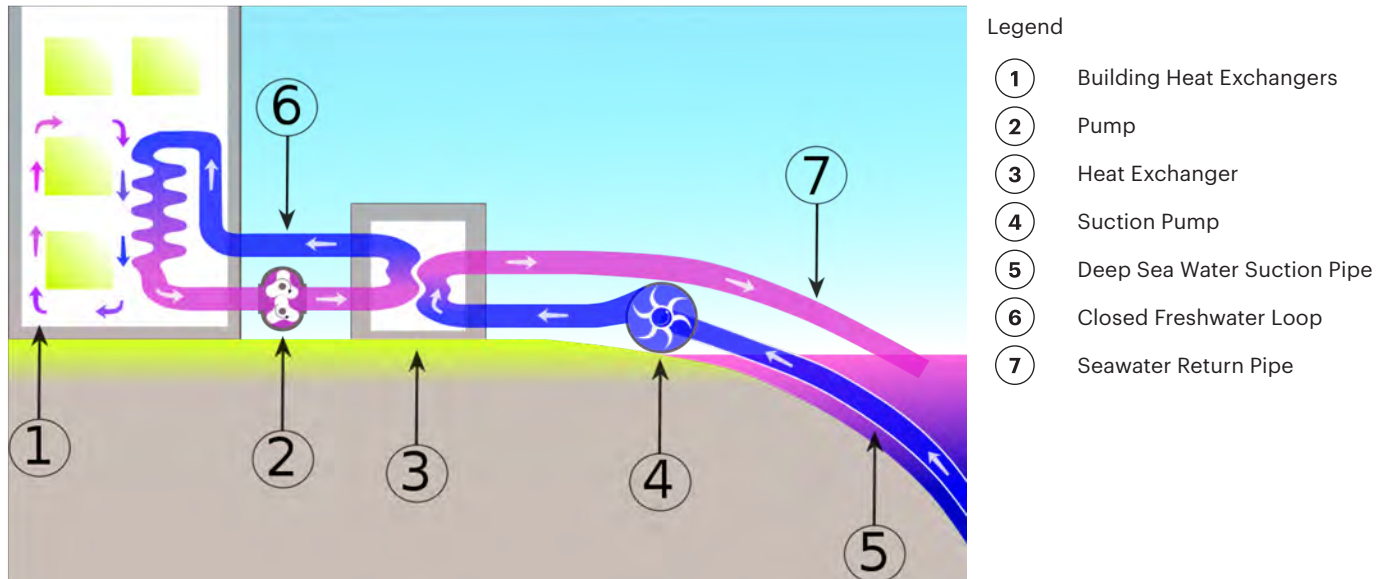
Heating/Cooling District

Cooling districts can use some or all of these technologies:

- Ground source (geothermal)
- Air source (cooling tower)
- Ocean source (Sea Water Air Conditioning, SWAC)

A cooling district which starts with a well field for ground source heat pumps can reduce operation costs. If integrated with domestic water heating, this can significantly reduce per-unit total energy demand. This system can be gradually expanded until a larger heat sink makes sense, such as Sea Water Air Conditioning. Buildings should be designed to reduce heat gains and utilize natural breezes where possible. To handle the remaining cooling demand, ground source heat pumps can increase the efficiency of air conditioning units.

Seawater Cooling District Loop



Ecodistrict Report Conclusions

For the area of the government campus, an ecodistrict is feasible with several aspects of design addressed.

1. Building designs should incorporate natural ventilation and shading as much as architecturally feasible to reduce cooling loads
2. A cooling district with geothermal loops will reduce the day-to-day costs of cooling units, and if integrated with domestic hot water production, can significantly reduce the total energy demand of units.
3. Zoning reform allowing more businesses, residences and other beneficial land uses within walking distance of the government campus will reduce the energy burden of transportation to or from the new residences.
4. Increasing the pedestrian comfort through improvements to the usefulness, comfort, safety, and interest of pedestrian routes surrounding the campus will increase the mode share of pedestrian trips, especially in conjunction with the previous recommendation.
5. Sewer expansion should first look at using existing capacity (up to about 480 units), then expanding existing sewer lines (this analysis showed feasibility up to about 1,420 units), then a detailed analysis of the tradeoffs between further sewer line expansion and a package plant on or near the site performed, should the previous options be prohibitive.
6. With enough site coverage, the electrical demand of the site should be capable of being generated on site with solar panels and batteries. However, in the 500-unit higher-density scenario, additional land off-site for solar panel coverage may be preferable to nearly 70% solar panel coverage.

Find the full Ecodistrict Report for the Civic Center site as Appendix E (Ecodistrict Report).





Next Steps

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Pathways to Housing Entitlement at the Civic Center

Several potential pathways could lead to housing entitlement at the Lihue Civic Center. Three pathways are outlined below.

Pathway 1: Vision Update and Zoning Amendment

This pathway begins with a community visioning process to update the Town Core Urban Design Plan. This updated vision may include infill housing in portions of the Civic Center.

This updated vision would be implemented through a zoning amendment to change the build form and land use standards for the Civic Center to enable the kind of infill housing that the community wants to see on this site.

This is the recommended pathway and is detailed on the facing page.

Pathway 2: County Initiative

On this pathway, the County initiates a Project Development Use (PDU) permit for housing development on the Civic Center site. The permit application would be subject to approval by Planning Commission. Planning Commission has the authority to approve PDU permit applications that deviate from some zoning requirements, including residential density standards, if they include an affordable housing component. Projects approved under this process should create sustainable, stable environments, be compatible with the existing context, substantially conform to the intent of the General Plan and not interfere with any projected public improvements.

Requirements for this process are detailed in the Kaua'i County Planning and Land Development Code, Comprehensive Zoning Ordinance § 8-10.4 (Requirements for Project Development Use Permits). This was the available pathway for the Mayor's previously issued developer RFP for infill housing at the Civic Center.

Pathway 3: State-Led 201H Process

This pathway follows a newly-available process outlined in Chapter 201H of the Hawaii Revised Statutes for expedited permitting of affordable or workforce development applications. A developer would approach the State of Hawaii, rather than the County of Kaua'i, to seek exemption from any zoning requirements that preclude infill housing development on the Civic Center site.

The County would have the opportunity to opine on the State's decision, and the permit would be issued if the County either agreed with the State's finding or issued no comment.

This pathway is not recommended. It is best suited for larger sites that would require blanket land use changes and would be too blunt a tool for application in the sensitive Civic Center infill environment.

Recommended Implementation

Pursue Pathway 1, Vision Update and Zoning Amendment.

Analyze Infill Housing Potential in the Broader Town Core

The scope of this study did not include evaluation of infill housing feasibility at one block of the Civic Center. However, there are additional infill development opportunities in the Lihu'e Town Core. These other parcels could be considered either instead of or in addition to redevelopment on the Civic Center itself. At the closing workshop, community poll responses indicated support for the larger Town Core beyond the Civic Center as a location for infill housing.

Complete Feasibility and Capacity Analysis for the Lihu'e Town Core

Analysis of housing feasibility in the Town Core would inform future planning efforts addressing infill housing

development in this broader area. Understanding infill housing feasibility on a range of prototypical sites in the Town Core would help ground future visioning efforts in reasonable expectations for what the market may be able to provide. This feasibility analysis could be complemented by a capacity analysis which would demonstrate the number of housing units that the Town Core could expect to receive as infill development. This capacity analysis would inform the proportion of projected growth that could be reasonably expected from infill development as compared to larger-scale greenfield development at the perimeter of Lihu'e.



Update the Lihu'e Town Core Urban Design Plan

Address Housing in an Updated TCUDP

The 2009 Lihu'e Town Core Urban Design Plan (TCUDP) established a community vision for future development in the Town Core. In the 15 years since this plan was adopted, housing has become an increasing priority in planning efforts and growth projections have increased. Given the developments in policy direction and growth projections in the 15 years that have elapsed since the TCUDP's adoption, the community

would benefit from revisiting this plan and considering updates to the vision for the Town Core to address housing more directly.

Coordinate with the Lihu'e Community Plan

If possible, the community visioning process for an update to the TCUDP should be coordinated with an update to the Lihu'e Community Plan to ensure consistency between these plans and unite them under a comprehensive vision for Lihu'e as a whole.



Update Zoning

Reflect the TCUDP Vision with Updated Zoning

The updated Town Core Urban Design Plan should be implemented through a zoning amendment

that reflects the community's vision for the form and character in the Town Core and enables the community's desired housing choices.

