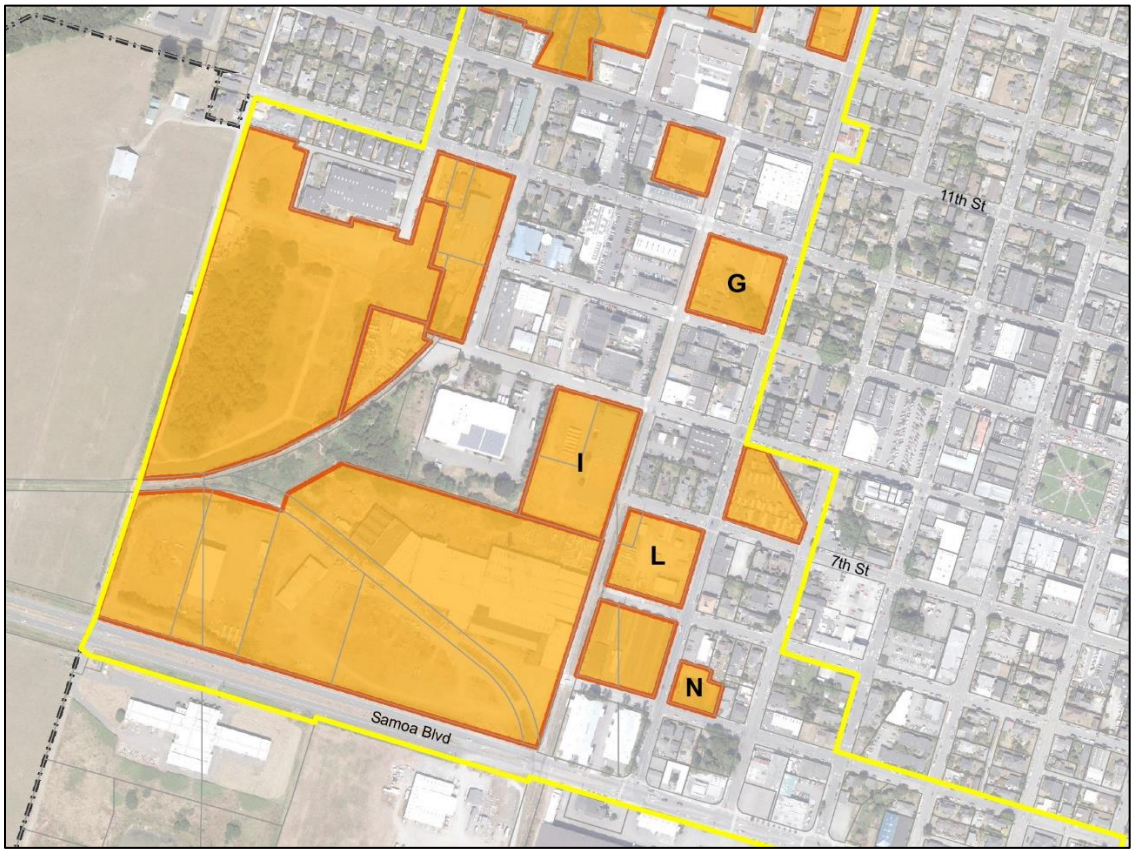
Introduction

This document contains site tests of development standards in the Draft Gateway Code. Architects at Urban Field Studio prepared these tests to confirm that the proposed Gateway Code standards can physically accommodate the type and intensity of development envisioned by the Gateway Plan. The results of these site tests can help identify refinements to the Draft Gateway Code that may be desirable given community priorities and Gateway Plan objectives.

Site tests were prepared for Gateway Plan opportunity sites G, I, L N as shown in the figure below. These sites were selected to consider a range of existing conditions on sites with high development potential. Site tests were consistent with building placement, height, massing, parking, open space, and other relevant standards in the Draft Gateway Code.



For each site, the following test information contains a graphic showing the site boundary and context, a ground floor plan, and an upper floor plan. A table contains site information, test inputs and assumptions, and test outputs (number of units and density). Important observations from the testing exercise for each site are also provided. Summary observations and recommendations for the Gateway Code are provided in the Conclusion section of this document following the site test information.

SITE G

Site Information	
Zoning District	Gateway Corridor
Parcel Dimensions	250’ x 250’
Parcel Area	1.42 acres
Inputs/Assumptions	
Building Height	5 stories and 60 feet
Average Unit Size	946 sq. ft.
Ground Floor Commercial	4,500 sq. ft.
Open Space	25,000 sq. ft.
Parking	45 garage spaces
Test Outputs	
Dwelling Units	87
Density	61 du/ac

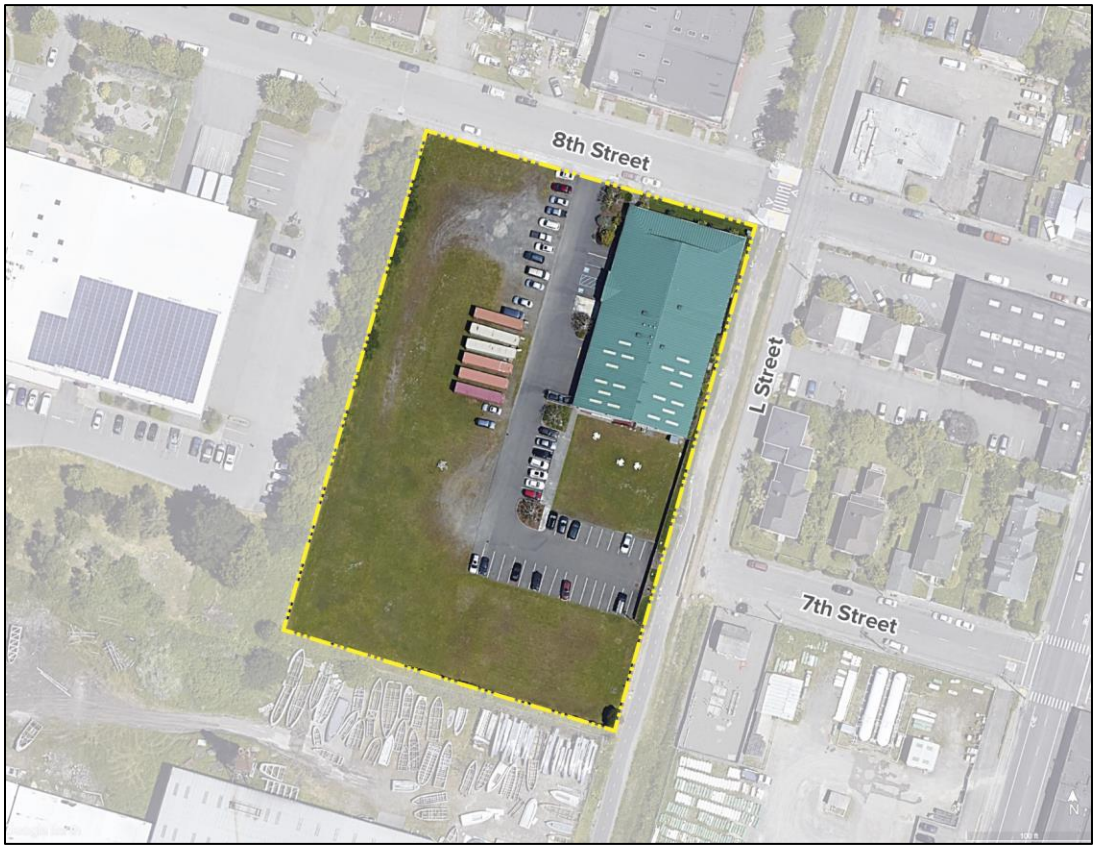
Site G: Ground Floor Plan

Upper Floor Plan

Observations:

- The area for ground level commercial space is limited facing 9th street due to the creek. This would result in perhaps one small isolated tenant space, presenting a very high risk location for a potential tenant.
- A large creek setback reduces the available land for development, reducing the unit yield and area for any onsite parking.
- Daylighting the creek is possible, though it would require dividing the building into two very small buildings with possibly an upper-level connection. If this is mandated, individual townhomes or walk-up apartments (max 3 story) might be a more viable solution. Adding structured parking and an elevator may make financial feasibility impossible.
- Large setbacks reduce the buildable area and ability to have onsite parking. This can create challenges to obtaining funding for the project and financial feasibility.
- Current economics likely won't work for structured parking. This means housing typologies that utilize street parking, surface parking, or townhomes with built-in parking may need to be considered.

Site I



Site Information	
Zoning District	Gateway Barrell
Parcel Dimensions	270’ x 423’
Parcel Area	2.65 acres
Inputs/Assumptions	
Building Height	7 stories and 80 feet
Average Unit Size	973 sq. ft.
Ground Floor Commercial	7,800 sq. ft.
Open Space	43,573 sq. ft.
Parking	150 garage spaces
Test Outputs	
Dwelling Units	300
Density	113 du/ac

Site I: Ground Floor Plan

Upper Floor Plan

Observations:

- Step-backs require that units at upper levels are custom and few in number. This presents a substantial premium in the cost per unit, negatively impacting the return and potentially leading to cost-cutting on the quality of construction to offset the costs or financial feasibility. These step-backs are especially difficult if they do not occur at the building type height limits set by the building code.
- Arcata has a uniquely intimate commercial streets and sidewalks. 20-foot sidewalks are not typical here and more appropriate where there are both a high concentration of pedestrians and outdoor seating for restaurants. In smaller communities, large sidewalks can feel empty due to their size. Consider 15-foot dimension to face of curb from building for both retail and residential uses. Retail may be hard scape, and residential may be a combination of landscape with minimum 6-foot sidewalks.
- This site is large enough for an efficient structured parking solution. However, this still may not be financially feasible. With smaller setbacks it may be possible to create enough surface parking to support a three story apartment structure.

- The existing commercial uses along 8th street in this particular area are more industrial in nature and may not generate the rent to cover the expense of vertical mixed-use retail. This retail requires expensive mechanical, electrical and plumbing and fire separation systems to be provided creating very high construction costs.
- There are costs associated with the demolition and lost income caused by the replacement of the Health Center.

Site L

Site Information	
Zoning District	Gateway Corridor
Parcel Dimensions	250’ x 250’
Parcel Area	1.44 acres
Inputs/Assumptions	
Building Height	5 stories and 60 feet
Average Unit Size	949 sq. ft.
Ground Floor Commercial	5,800 sq. ft.
Open Space	25,839 sq. ft.
Parking	72 garage spaces
Test Outputs	
Dwelling Units	122
Density	84 du/ac

Site L: Ground Floor Plan

Upper Floor Plan

Observations:

- Step-back requirements would result in too many unit types for a small building. If step-backs are necessary they should be coordinated with building code criteria for building types. For example, if four stories are allowed without step-backs, it increases the feasibility of a type V apartment building which allows a four-story wood framed building.
- Large setbacks reduce the possibility for parking on-site or different housing typologies. Consider 15-foot dimension from face of building to face of curb to create a larger developable area allowing the site flexibility to respond to a variety of solutions.
- Current economics likely won't work for structured parking. Means either less parking or reduced units with surface and tuck under parking.

Site N

Site Information	
Zoning District	Gateway Neighborhood
Parcel Dimensions	135’ x 150’ with 40’ x 60’ notch
Parcel Area	0.43 acres
Inputs/Assumptions	
Building Height	4 stories and 50 feet
Average Unit Size	962 sq. ft.
Ground Floor Commercial	3,500 sq. ft.
Open Space	5,618 sq. ft.
Parking	12 garage spaces
Test Outputs	
Dwelling Units	27
Density	62 du/ac

Site N: Ground Floor Plan

Upper Floor Plan

Observations:

- Consider utilizing street parking on small sites to reserve limited real estate for units and allow a higher yield for a lower height, lower-cost housing typology.
- The retail will need parking as will the residential. The combined demand for parking may impact the feasibility of both uses.
- Current economics likely won't work for structured parking. This means either less parking or reduced units with surface and tuck under parking.

Conclusions

The table below summarizes the number of units and resulting density for the tests on each of the sites. Site testing found an achievable density ranging from 61 units per acre (Site G) to 113 units per acre (Site I).

	Site G	**Site I**	**Site L**	**Site N**
Zoning District	G-C	G-B	G-C	G-N
Building Height	5 stories	6 stories	5 stories	4 stories
Dwelling Units	87 units	300 units	122 units	27 units
Density	61 du/ac	113 du/ac	84 du/ac	62 du/ac

The Gateway Code aims to implement Gateway Plan goals to facilitate high-density residential development that is human-scaled, pedestrian-friendly, and sensitive to existing lower-intensity uses. With this goal in mind, the Gateway Code includes minimum setback standards of between 10 and 20 feet to accommodate a wide pedestrian realm between the building and street curb. The Gateway Code also contains upper story step back requirements to reduce the appearance of tall buildings at the street, reduce shadow impacts, and provide context-sensitive massing adjacent to lower-intensity residential uses.

The site testing found that these setback and stepback standards, while advancing Plan design goals, would also increase development costs and reduce achievable densities in certain cases. The public benefits achieved with these standards should be weighed against their associated costs. With this in mind, the City may wish to consider the following modifications to the Gateway Code standards to reduce development costs and increase unit production:

- **Combined sidewalk and Property Line Setbacks**: 15 feet from the face of curb to the building facade is an adequate dimension for commercial and apartment uses up to 60 feet in building height. This is commonly found in many historic American Cities. 15 feet allows the flexibility to design the streetscape appropriately for residential and commercial land uses in different ways including stoops and yards for residential uses and outdoor seating and display areas for commercial uses. Larger setbacks may be electively applied if desired by the developer.
- **Upper Story Step Backs**: Allow up to 5 stories with no step backs. This will permit both Type III and Type V building construction maximums.
- **Active Ground Floor Frontages**. Consider eliminating the requirement for ground floor active frontages (retail uses) except in well-established retail districts. The cost of this square footage is much higher than rent can justify and can deter smaller local developers from building housing.