TRPA
Zoning + Affordability Analysis

Final Analysis + Key Findings

CASCADIA PARTNERS

Alex Joyce
Managing Partner

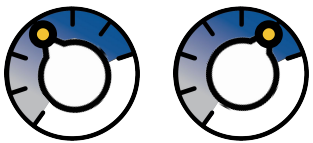
Presentation Agenda

1. Purpose + Background
2. Analysis Results: Within Town Center Areas
3. Analysis Results: Multi-Family Zones Adjacent to Town Centers
4. Key Takeaways
5. Going Deeper: Areas for Further Study

We have been studying the feasibility of multi-family development in the Tahoe Basin

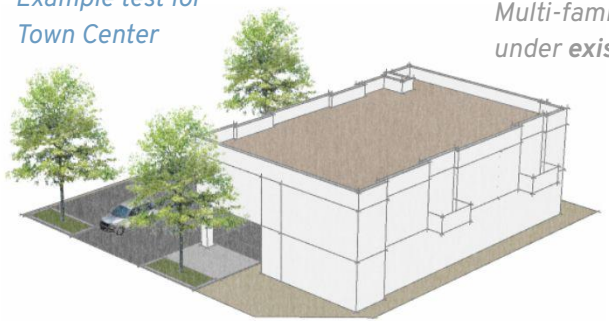
Over two phases, Cascadia Partners has been conducting pro forma analyses of Tahoe's development standards for multi-family development on behalf of the Tahoe Regional Planning Agency (TRPA). Cascadia has been primarily testing changes to the following standards:

- Maximum Density
- Maximum Coverage
- Maximum Height
- Height Roof Pitch Requirement
- Minimum Setbacks
- Minimum Parking Ratio

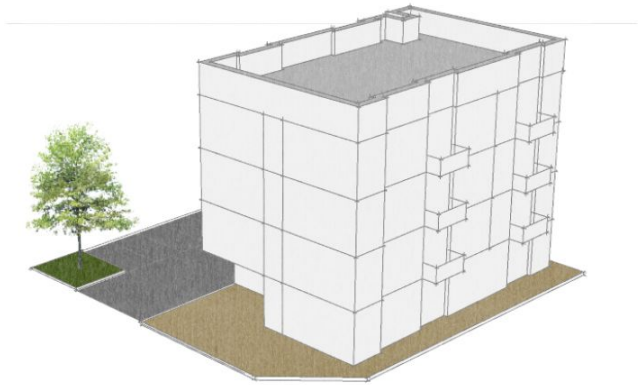


Example test for Town Center

*Multi-family development under **existing code***



*Multi-family development under **alternative code.***



Phase 1 tested the impact of alternative development standards on targeted housing types such as a duplex, a fourplex and a multi-family building. Phase 1 tested alternatives to density, coverage and height only.

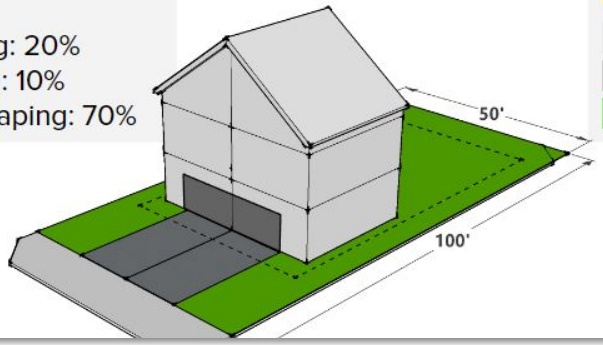
Alternative standards can comfortably accommodate a duplex with average 3-bedroom unit sizes and improves rate of return.

EXISTING

Unit Size: 909 SF

IRR: -3.1%

- Building: 20%
- Parking: 10%
- Landscaping: 70%

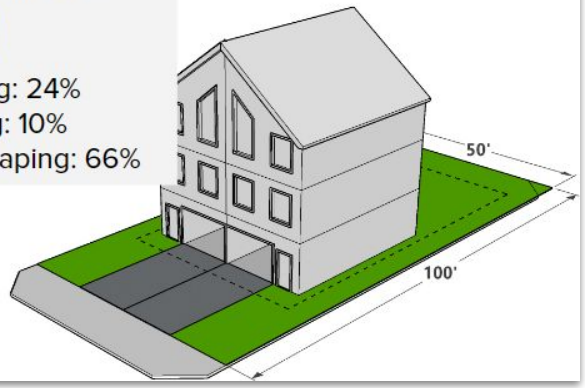


TEST ALTERNATIVE

Unit Size: 1,250 SF

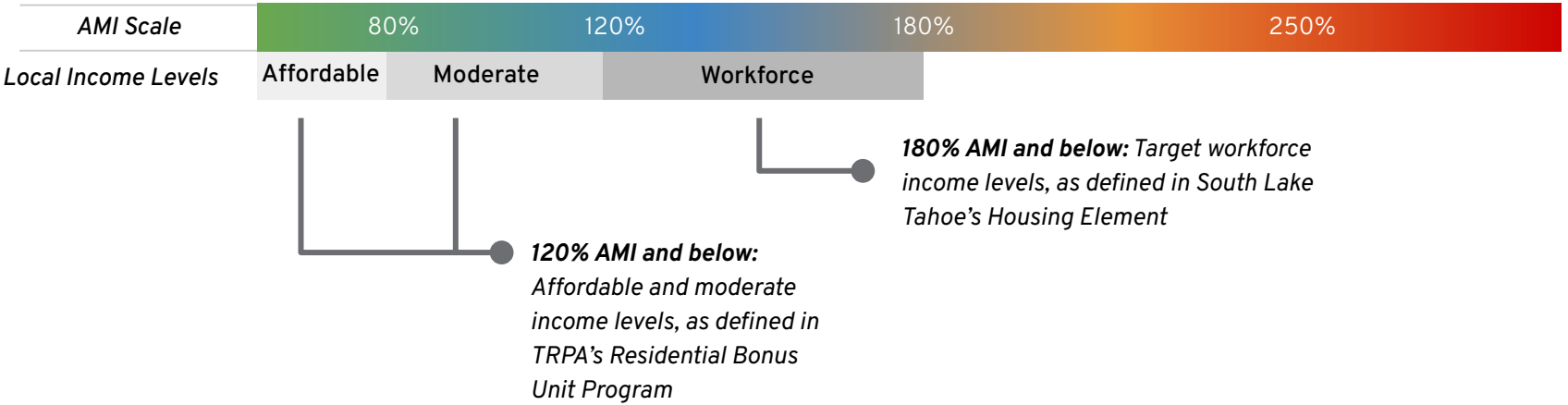
IRR: 7.5%

- Building: 24%
- Parking: 10%
- Landscaping: 66%



The goal of Phase 2 is to identify all major barriers to multi-family development and test the removal of those barriers and make it more financially feasible for developers to build workforce, moderate and/or affordable housing.

This analysis explores the code changes it takes to encourage more housing supply and make it feasible to build more affordable housing in the Tahoe Basin. Affordability of development is measured against the Area's Median Income (AMI) and compared against local definitions of housing affordable to workforce, moderate income and low income households.



Development feasibility and affordability was measured under the three following scenarios

1 **Existing code and regulations**

2 **Alternatives to only TRPA regulations**

3 **Alternative to TRPA and local jurisdiction regulations.**

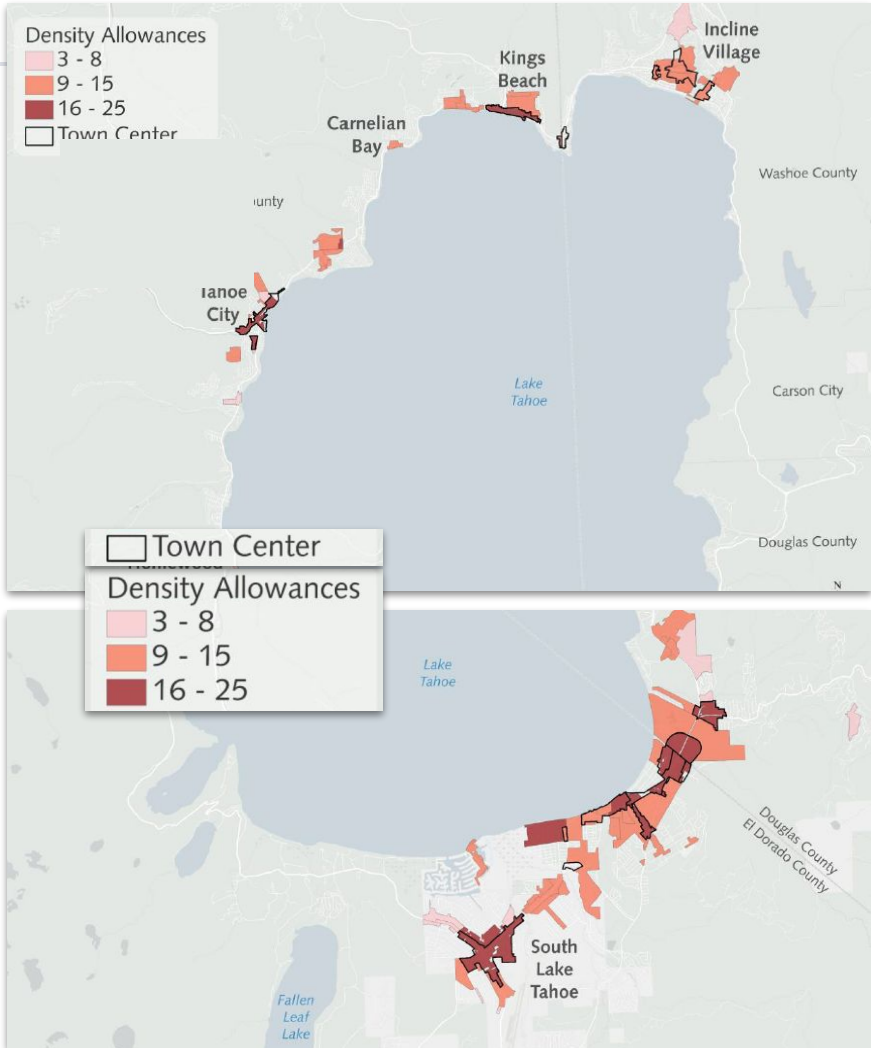
Similar to Phase 1, this analysis looks at identifying barriers and testing alternatives to multifamily zoning code on standard lot sizes in two different contexts:

Within Town Centers

Less than 1% of total Tahoe Basin Area
Standard lot size is **around 12,000 SF**

Multi-Family Zones Adjacent to Town Centers

Less than 4% of the total Tahoe Basin Area
Standard lot sizes **range from 5,000 SF to 8,000 SF**



Analysis Results
Within Town Center

Existing Code

TRPA Code

Maximum Density	25 units / acre
Maximum Coverage	70%
Maximum Height	4 stories
Height Roof Pitch Requirement	No

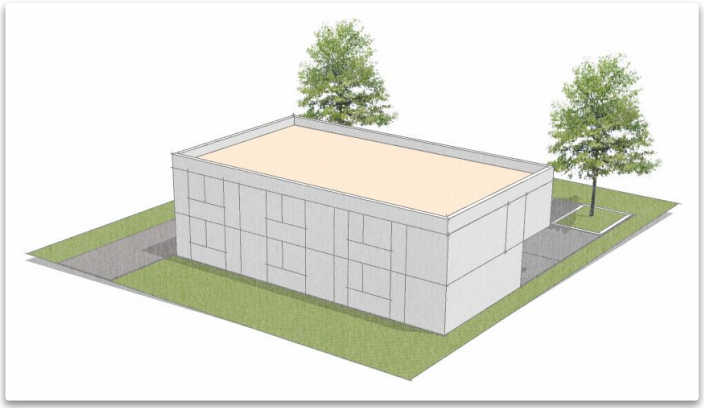
Local Code

Minimum Parking Requirements	2.25 spaces per unit - 2 bed+ 1.25 space per unit - less than 2 bed
Minimum Setbacks	Front: 20 ft Rear: 15 ft Side: 10 ft

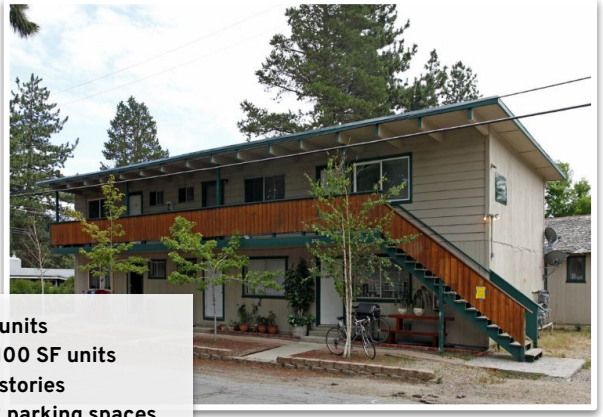
Barrier #1: Maximum density caps housing development to 6 units on a standard lot.

- 25 units / acre is the primary barrier to building higher density multi-family housing in Town Centers.

Ex. Model of 6 units on 12,000 SF lot



Example Development



6 units
1,100 SF units
2 stories
12 parking spaces

Test Alternatives:

[None]

As a result, developers build larger and more expensive units to meet target returns.

- Rents for 1,100 SF apartment units would need to be about $5,700/month for this development to be viable.
- Those rents are only affordable to households making over $235,000.

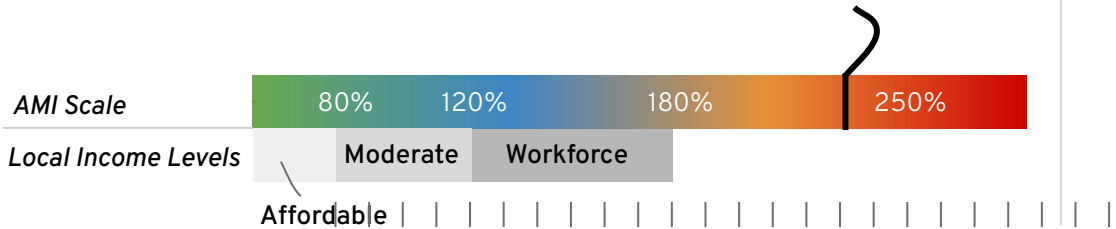
Example Development

6 units
1,100 SF units
2 stories
12 parking spaces

Test Alternatives:

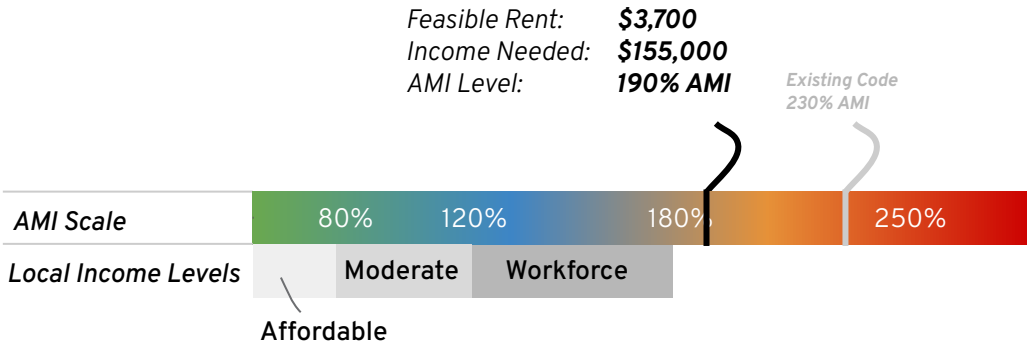
[None]

Feasible Rent: ***$5,700***
Income Needed: ***$235,000***
AMI Level: ***230% AMI***

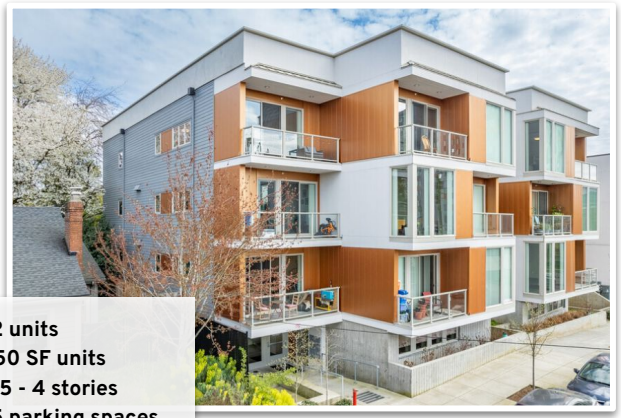


Changes to TRPA code standards can reduce feasible rents by about 35% but they are still not quite affordable to local workforce.

- By making changes to TRPA's code, unit rents shifted from being affordable to a household making at least $235,000 to a household making at least $155,000.
- While this is an improvement, feasible rents are still short of serving housing affordable to the local workforce.



Example Development



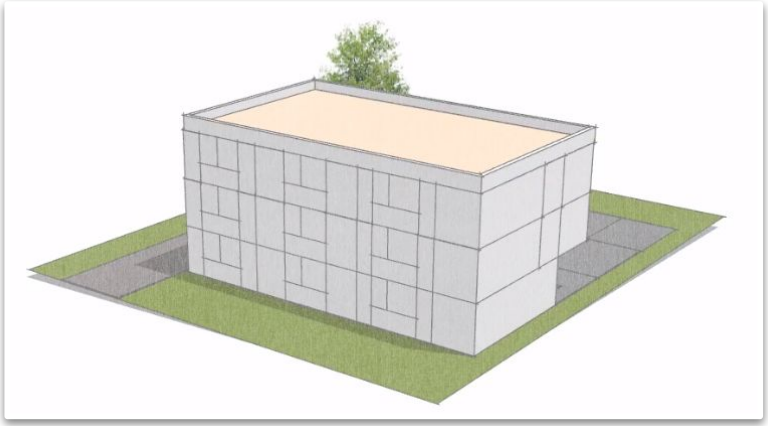
12 units
750 SF units
3.5 - 4 stories
15 parking spaces

Test Alternatives:

- Increase Maximum Density
- Maximum Height to 5 stories

Increasing density incrementally adds units and helps with affordability but other barriers exist.

Ex. Model of 12 units on 12,000 SF lot



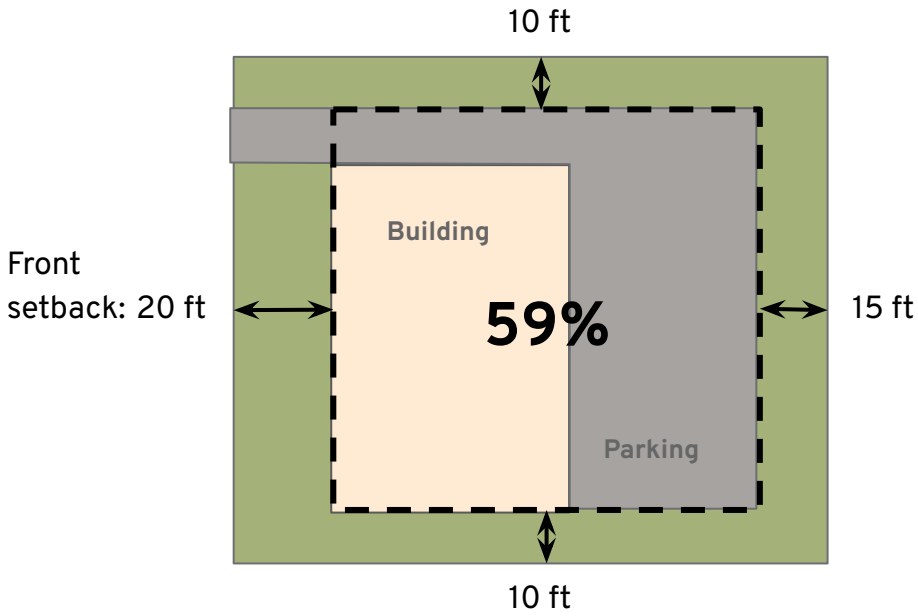
Example Development

12 units
750 SF units
3.5 - 4 stories
15 parking spaces

Test Alternatives:

- Increase Maximum Density
- Maximum Height to 5 stories

Barrier #2: Setbacks max out building area to 59% of the lot - even though zone allows 70% coverage



Example Development

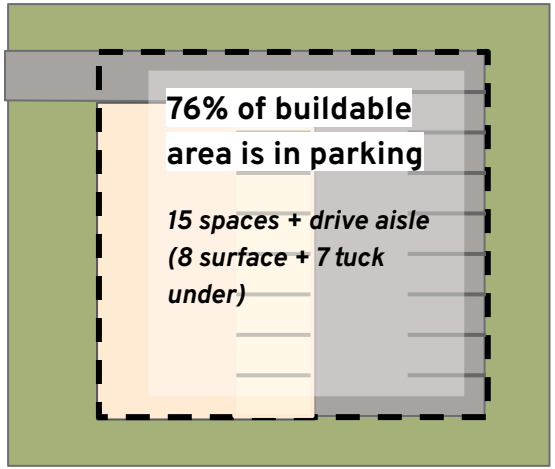
12 units
750 SF units
3.5 - 4 stories
15 parking spaces

Test Alternatives:

- Increase Maximum Density
- Maximum Height to 5 stories

Barrier #3: Minimum parking requirements limit the ability to build more affordable, smaller units on a site. Parking is a requirement, housing is not.

- Given the buildable area remaining, it is only possible to fit about 15 spaces next to a new building on the site.
- Existing parking ratio for 1 bedroom units is 1.25 spaces per unit. For 12 units, this equated to 15 parking spaces.



Example Development

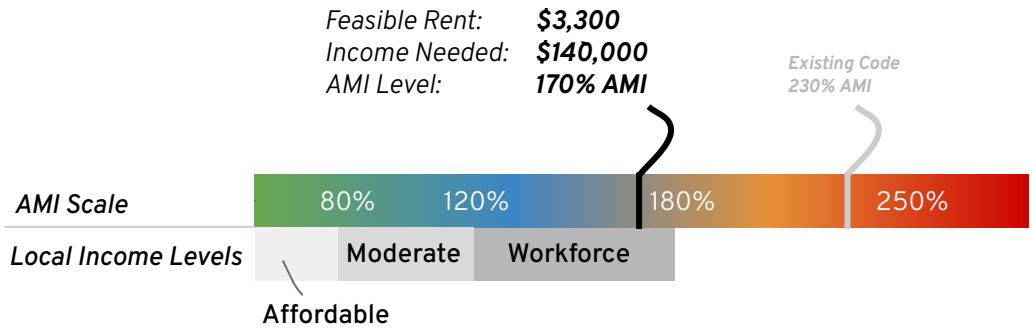
12 units
750 SF units
3.5 - 4 stories
15 parking spaces

Test Alternatives:

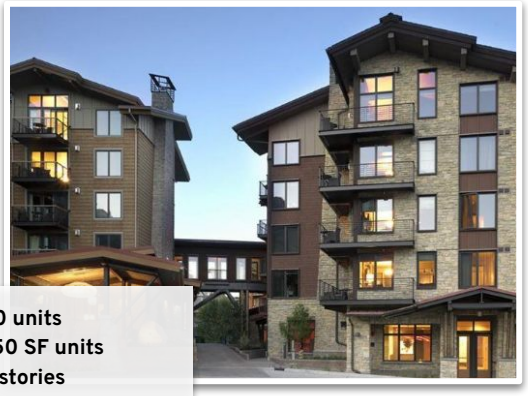
- Increase Maximum Density
- Maximum Height to 5 stories

Reducing parking minimums and optimizing 70% coverage by reducing setbacks can reduce feasible rents to a level affordable to local workforce.

- Parking ratios were reduced to 0.75 spaces per unit.
- These changes add 8 extra units to the site.



Example Development



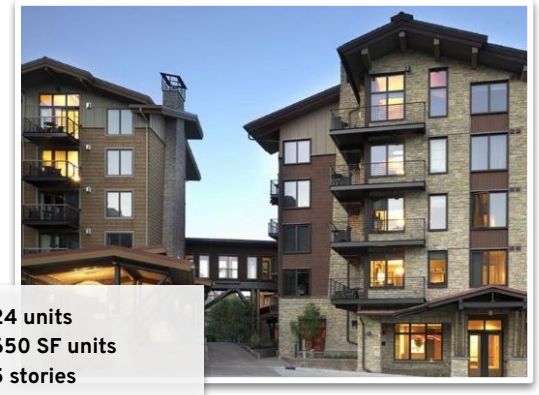
20 units
750 SF units
5 stories
15 parking spaces

Test Alternatives:

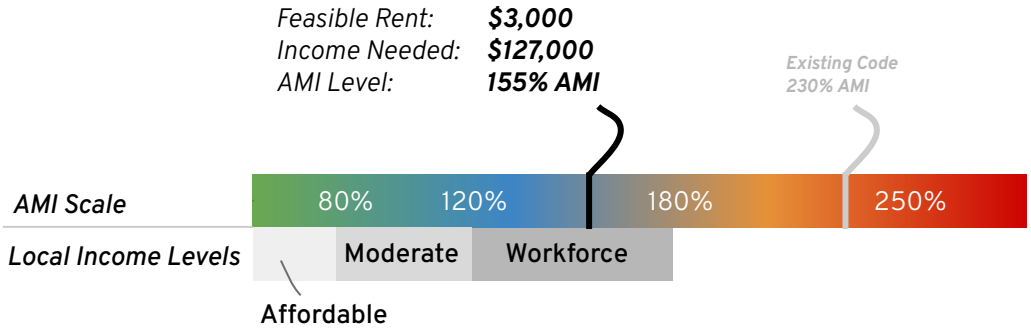
- Increase Maximum Density
- Maximum Height to 5 stories
- Parking Minimum to 0.75 spaces per unit
- Reduce Setbacks by 30%

Removing maximum coverage requirements by switching to an areawide stormwater treatment system lowers costs and rents even further.

- Feasible rents would reduce from $3,300 to $3,000 / month, a 9% reduction.
- The building form remains the same but the added coverage can fit in a couple more units and parking spaces.



24 units
650 SF units
5 stories
18 parking spaces

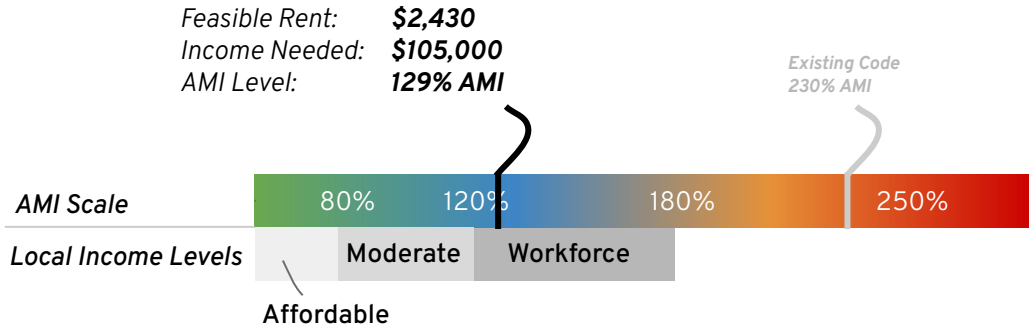


Test Alternatives:

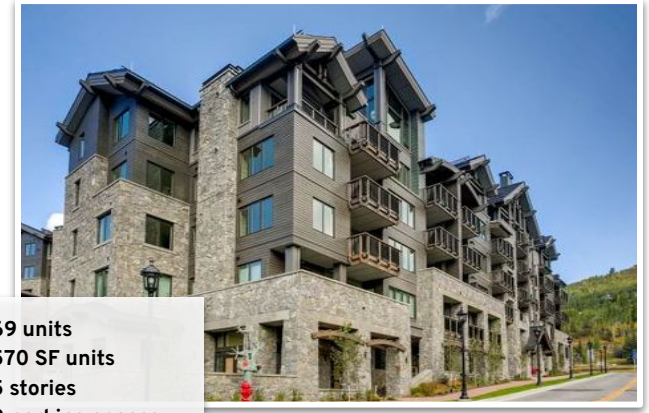
- Increase Maximum Density
- Maximum Height to 5 stories
- Parking Minimum to 0.75 spaces per unit
- Reduce Setbacks by 50%
- Remove Maximum Coverage

Removing on-site parking can significantly increase unit capacity, construction efficiencies, and encourage smaller units that are inherently more affordable

- This is only a hypothetical to illustrate the changes needed to feasibly reach lower levels of affordability. It is very unlikely that larger developments provide no parking. Just because we don't require it does not mean the market won't build it.



Example Development



69 units
570 SF units
5 stories
0 parking spaces

Test Alternatives:

- Increase Maximum Density
- Maximum Height to 5 stories
- Remove Minimum Parking Requirements
- Reduce Setbacks by 50%
- Remove Maximum Coverage

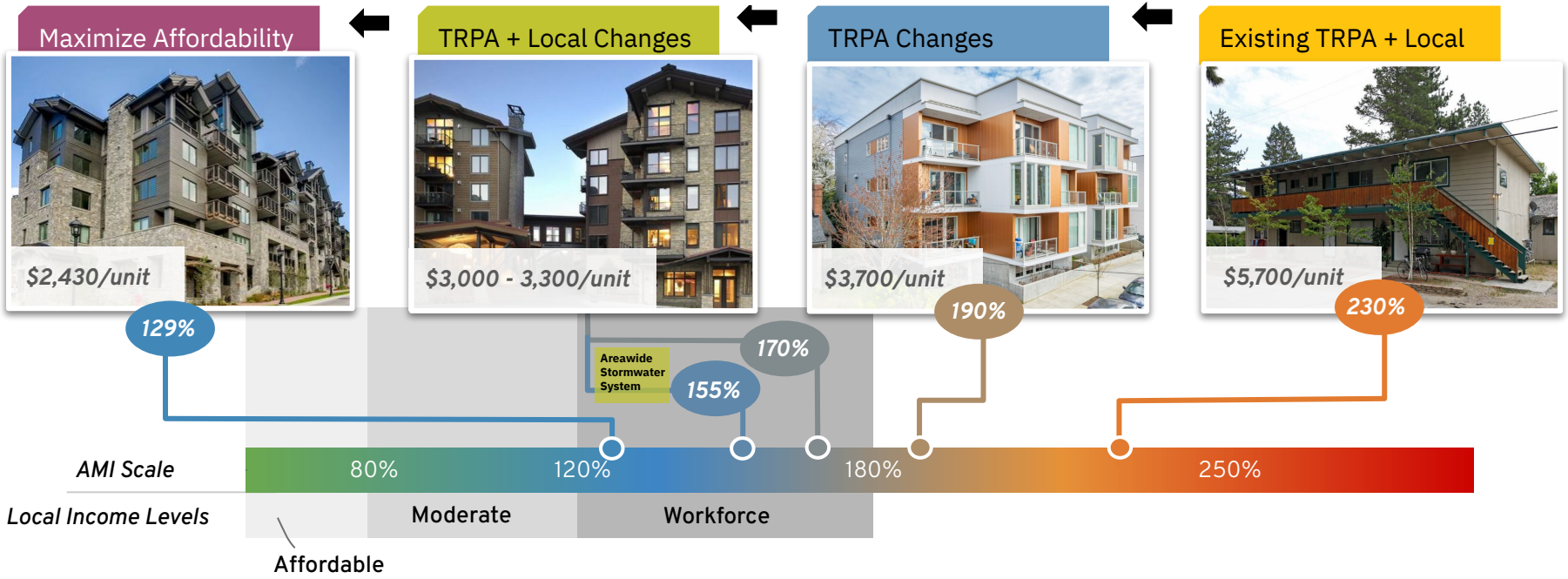
-57% in feasible rent from existing TRPA + local code to maximize affordability

Summary of Findings: Housing Affordability

-19% in feasible rents

-19% in feasible rents

-35% in feasible rents



Analysis Results

Multi-Family Zones Adjacent to Town Centers

Existing Code

TRPA Code

Maximum Density	15 units / acre
Maximum Coverage	30%
Maximum Height	3 stories
Height Roof Pitch Requirement	Yes

Local Jurisdiction Code

Minimum Parking Requirements	2 spaces per unit
Minimum Setbacks	Front: 20 ft Rear: 10 - 20 ft Side: 5 ft

Barrier #1: Maximum density encourages the development of the status quo -- larger, expensive single family or duplex units on standard size lots.

- New development would result in $1 Million homes.
- 15 units / acre is too low to allow for missing middle development that can be more affordable on smaller neighborhood infill lots.

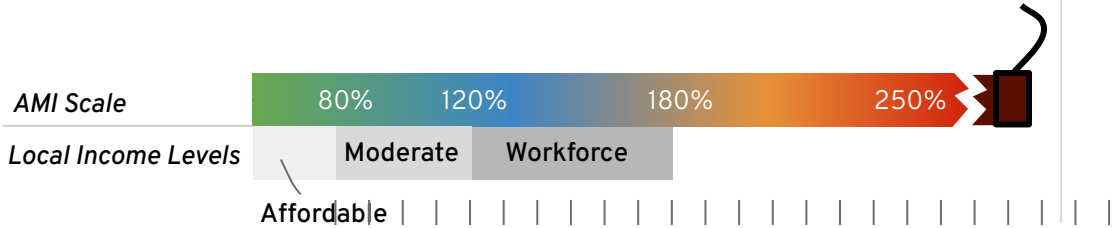
Example Development

1-2 units
1,800 SF units
2.5 stories
2 - 4 parking spaces

Test Alternatives:

Feasible Price: ***$1,100,000***
Income Needed: ***$320,000***
AMI Level: ***320-345% AMI***

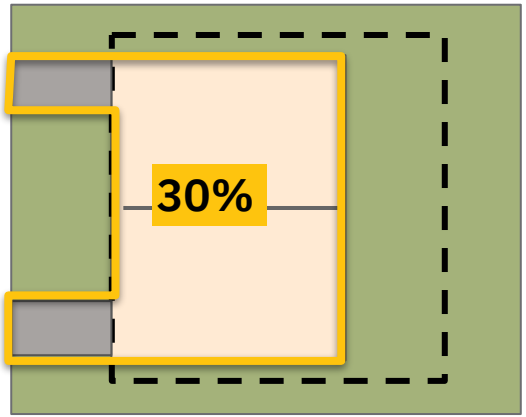
[None]



Barrier #2: Increasing density limits won't do much if maximum coverage remains at 30%.

- Additional coverage is not only necessary for the additional units but also for the the additional parking required to add more units.
- In this example, coverage is just barely enough to fit a duplex and two driveways to access garage parking.

Coverage example for Duplex



Example Development

1-2 units
1,800 SF units
2.5 stories
2 - 4 parking spaces

Test Alternatives:

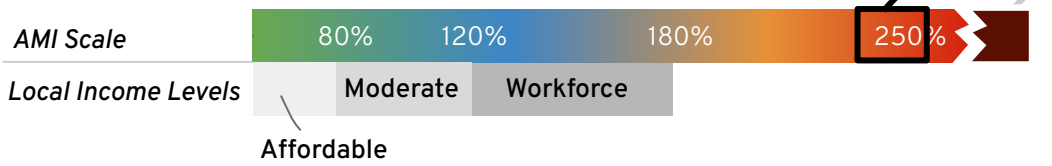
[None]

Changing TRPA code - density & lot coverage - reduces unit pricing by 23%.

- By making changes to TRPA's code, unit prices shifted from being affordable to a household making at least $300,000 to a household making at least $235,000.
- While this is an improvement, feasible prices are still only affordable to the higher income households.

Feasible Price: ***$850,000***
Income Needed: ***$235,000***
AMI Level: ***235-264% AMI***

Existing Code 330% AMI



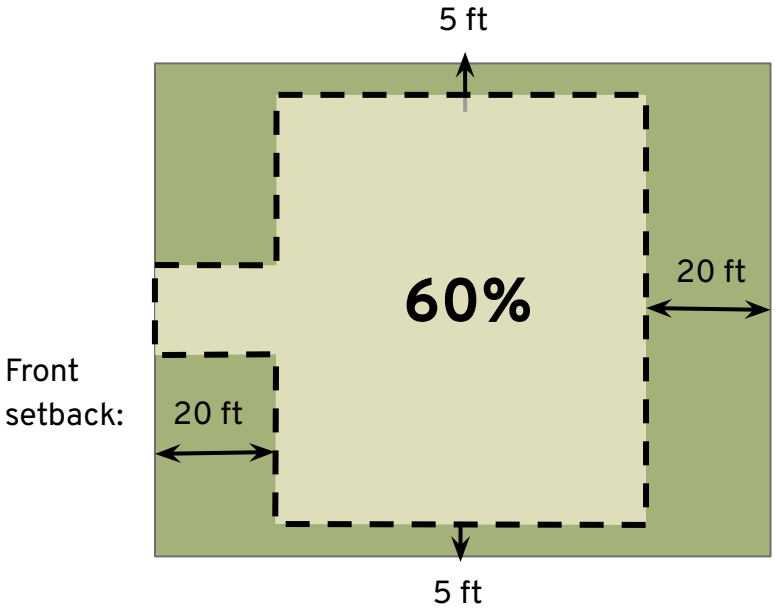
Example Development

2-4 units
1,200 SF units
3 stories
4 - 8 parking spaces

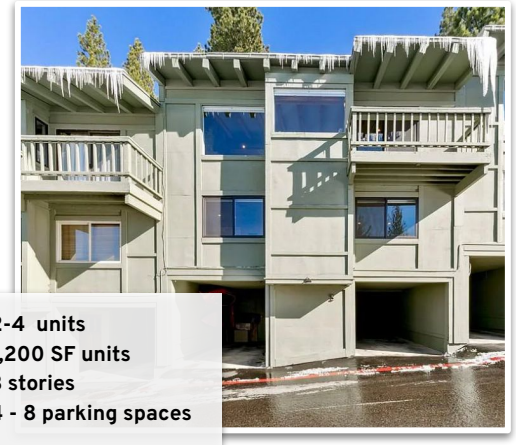
Test Alternatives:

- Increase Maximum Density
- Remove Roof Pitch Requirement
- Maximum Coverage to 70%

Barrier #3: Setbacks need to be reduced for development to take full advantage of 70% coverage on a standard lot.



Example Development



2-4 units
1,200 SF units
3 stories
4 - 8 parking spaces

Test Alternatives:

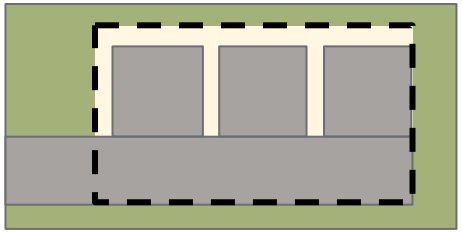
- Increase Maximum Density
- Roof Pitch Requirement
- Maximum Coverage to 70%

Barrier #4: Parking requirements take up the entire ground floor, leaving no room to build more affordable, smaller units on a site.

- Spaces and driveways needed to meet parking requirements for 3 or 4 units take up 80% or more of the buildable area.

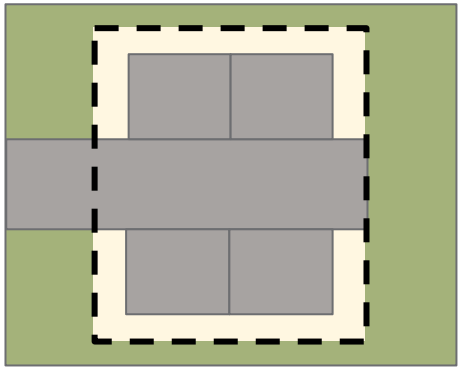
Triplex on 5,000 SF

Three 2-car garages + driveway

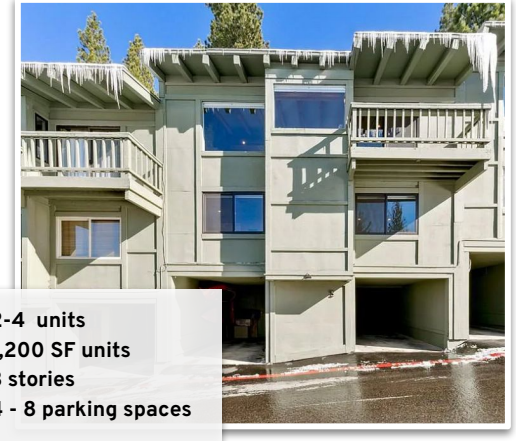


Fourplex on 8,000 SF

Four 2-car garages + driveway



Example Development



2-4 units
1,200 SF units
3 stories
4 - 8 parking spaces

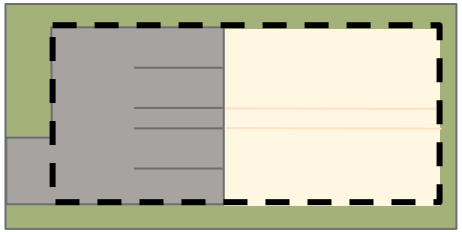
Test Alternatives:

- Increase Maximum Density
- Roof Pitch Requirement
- Maximum Coverage to 70%

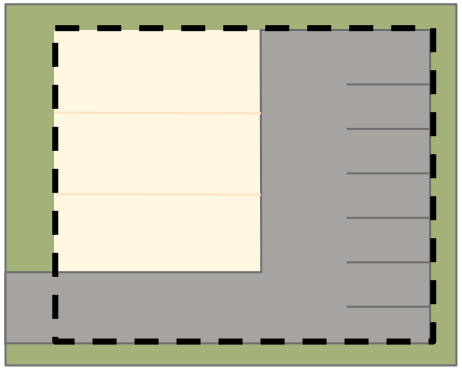
Reducing parking minimums and optimizing 70% coverage by reducing setbacks allows for a more efficient site layout and encourages more affordable, smaller units.

- These changes make way for enough buildable area to place surface parking next to the building on a standard lot rather than under the building.

Sixplex on 5,000 SF



9-unit Multiplex on 8,000 SF



Example Development

6 - 9 units
750 SF units
3 stories
5 - 7 parking spaces

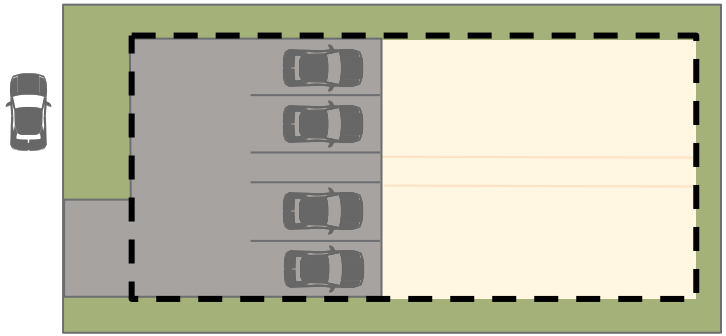
Test Alternatives:

- Increase Maximum Density
- Roof Pitch Requirement
- Maximum Coverage to 70%
- Parking Minimum to 0.75 space per unit
- Reduce Setbacks by 50%

In addition, allowing for on-street parking to count towards the parking requirements can help maximize space for building on smaller lots.

Sixplex on 5,000 SF

4 off-street spaces + 1 on-street space + driveway



Example Development

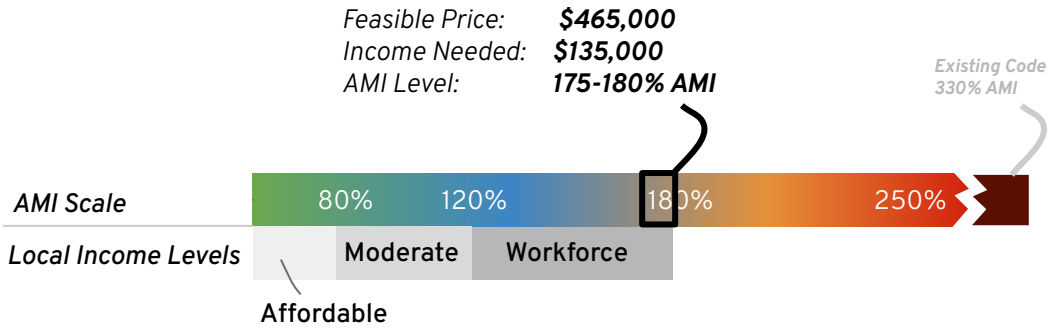
6 - 9 units
750 SF units
5 stories
5 - 7 parking spaces

Test Alternatives:

- Increase Maximum Density
- Roof Pitch Requirement
- Maximum Coverage to 70%
- Parking Minimum to 0.75 space per unit
- Reduce Setbacks by 50%

These changes drastically reduce prices, by almost 50%, and can produce units affordable to local workforce.

- Prices drop from $850,000 to $465,000 per unit.
- Prices went from being affordable to households making at least $235,000 to a household making about $135,000.



Example Development

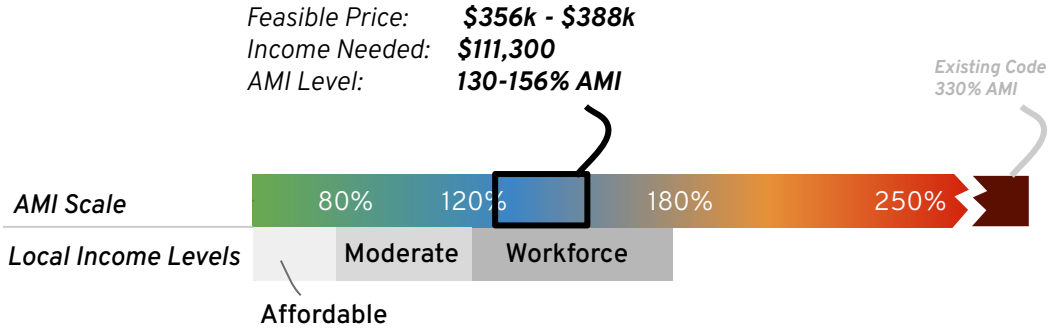
6 - 9 units
650 - 850 SF units
3 stories
5 - 7 parking spaces

Test Alternatives:

- Increase Maximum Density
- Roof Pitch Requirement
- Maximum Coverage to 70%
- Parking Minimum to 0.75 space per unit
- Reduce Setbacks by 50%

Removing parking can significantly increase unit capacity, encouraging smaller units that are inherently more affordable

- Without parking, there is no requirement to share the buildable area with parking, therefore, increases in units are only limited to the buildable area and building height.



Example Development

20 - 32 units
590 SF units
4 stories
0 parking spaces

Test Alternatives:

- Increase Maximum Density
- Maximum height to 4 stories
- Roof Pitch Requirement
- Remove Maximum Coverage
- Remove Minimum Parking Requirements
- Reduce Setbacks by 50%

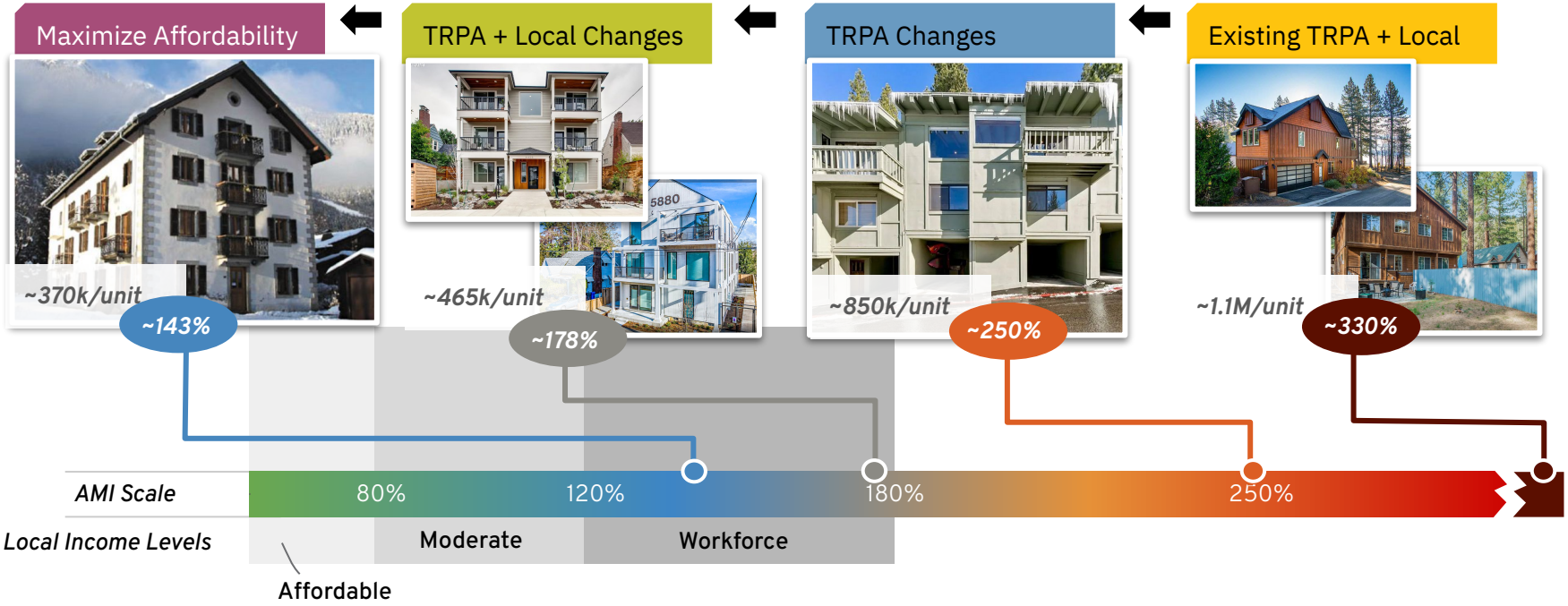
-66% in feasible price from existing TRPA + local code to maximize affordability

Summary of Findings: Housing Affordability

-20% in feasible price

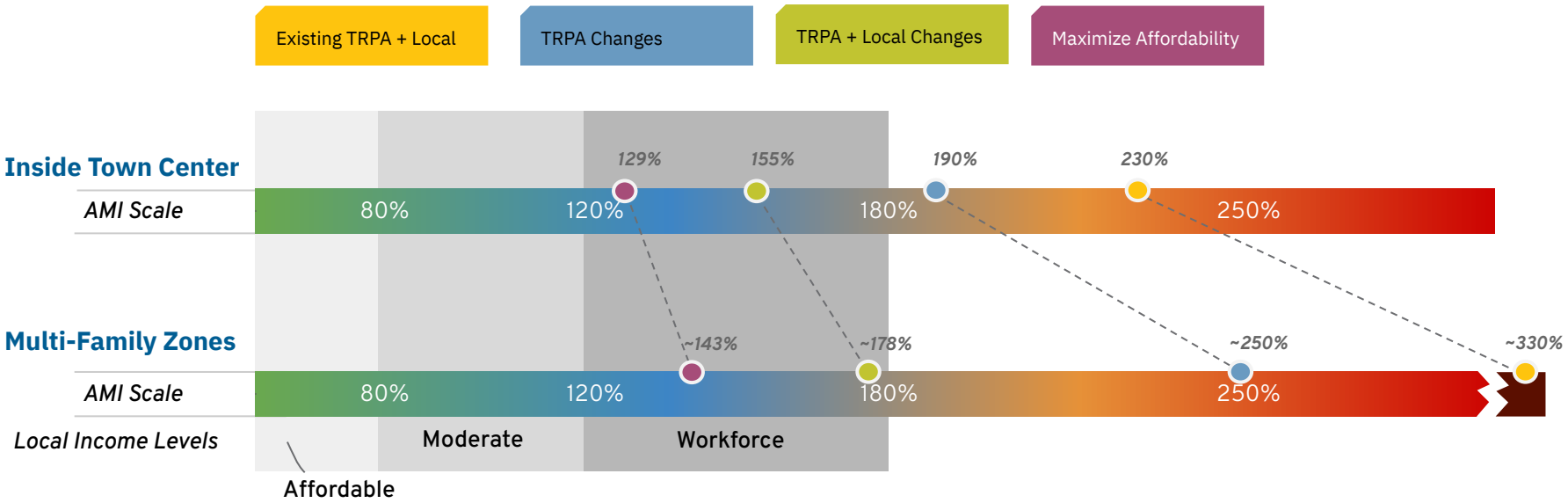
-45% in feasible price

-23% in feasible price



Key Takeaways

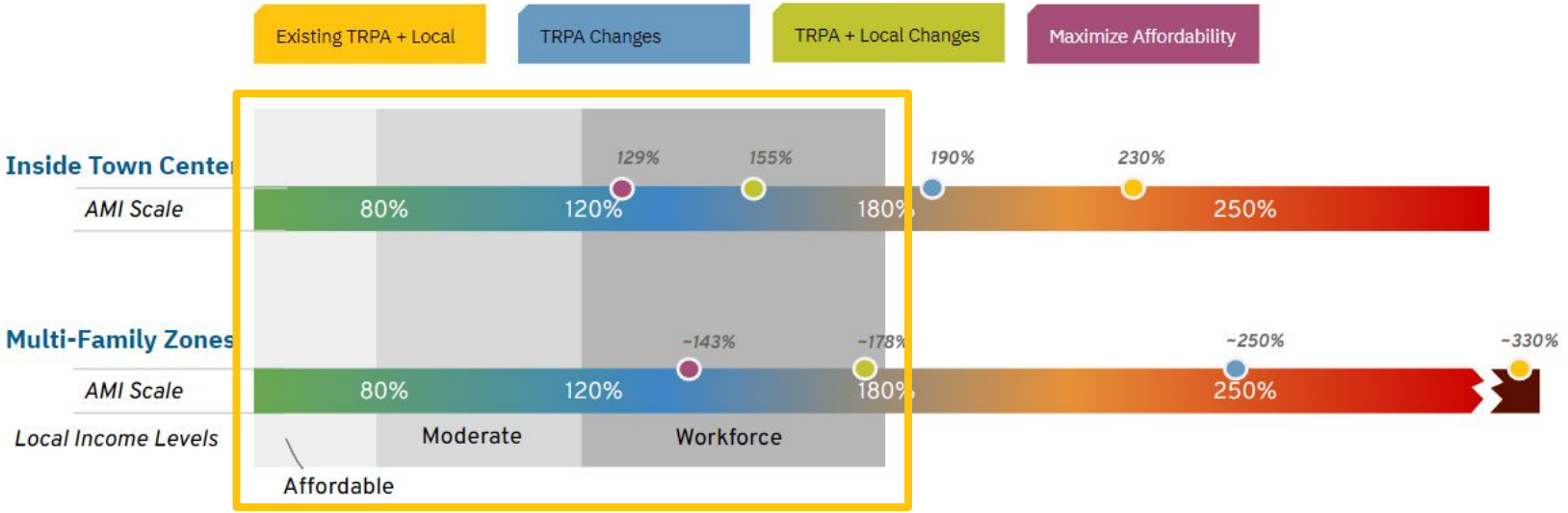
TRPA + Local Zone Changes Can Reduce Housing Costs



TRPA code changes alone are not enough to produce units affordable to workforce

While changes to TRPA code can improve unit affordability, changes to local jurisdiction code are also necessary to make it feasible for development to produce housing affordable to Tahoe's workforce.

- On-site parking minimums especially are major barrier to producing housing at density levels that can produce multifamily units affordable to workforce housing.



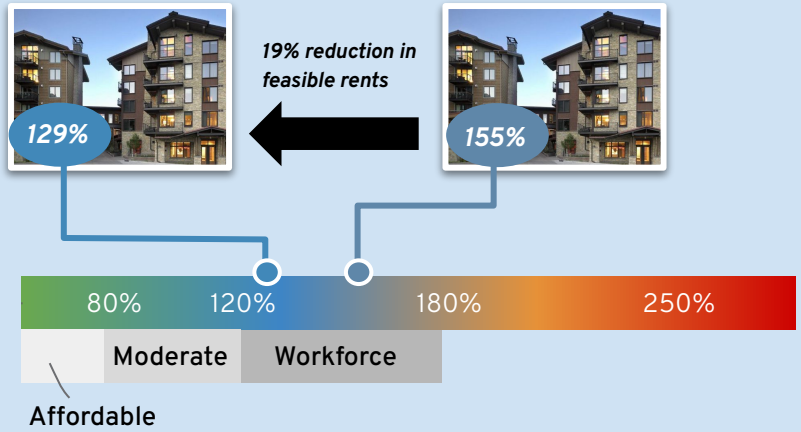
Zoning reforms can only do so much to create more deeply affordable units

Illustrated by 'Maximize Affordability' scenarios, code changes can only go so far to help make it feasible to produce units that are affordable to households making less than 120% AMI. Sometimes it requires some subsidy or cost reductions to feasibly produce units affordable at these levels.

List of some ways to offset the cost of development:

- **Cost reductions** (fees waivers or exemptions)
- **Direct investments** (subsidy)
- **Land banking** (land cost)
- **Construction technology changes** (modular)

Example: reduce construction costs by 25% with modular construction



QUESTIONS

Alex Joyce | Cascadia Partners