

LASS +CAP

LAND AVAILABILITY AND
SUITABILITY STUDY +
CODE ANALYSIS PROJECT



PROJECT UPDATE

January 14, 2025





AGENDA

1. Project Purpose and Goals
2. Land Availability / Site Suitability Findings
3. Code Diagnosis Findings
 - *Approach and Methodology*
 - *Zoning and Subdivision Codes*
 - *Engineering, Transportation Impact Analysis, and Fire Access Standards*
 - *Building Code*
4. Next Steps
5. Discussion Questions

1. PROJECT PURPOSE AND GOALS

PROJECT INTRODUCTION

Multi-pronged initiative to address critical long-term planning and resilience needs:

- Partnership between Planning, Housing, Sustainability, Mountain Line
- Provides much-needed base for high-level coordination between numerous City Divisions
- Highly coordinated with Engineering (Development Engineering and Transportation), Fire, Building Safety, Economic Vitality, Water Services, and others

PROJECT SCOPE

The Land Availability and Suitability Study (LASS) focuses on:

- What land is available in Flagstaff, and development potential and barriers

The Code Analysis Project (CAP) will conduct an in-depth analysis of:

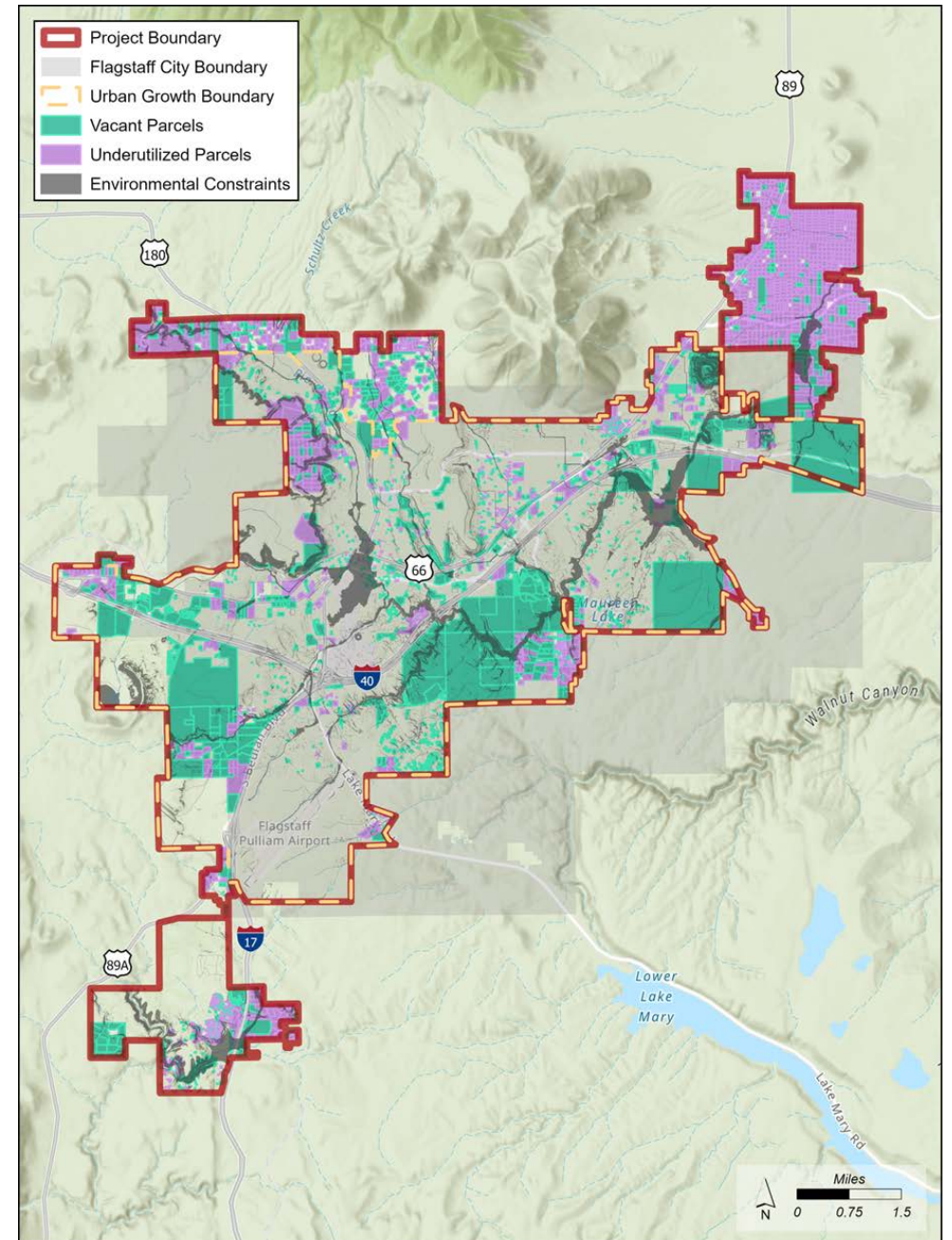
- Development code and process, through the lens of City Council commitments to address Housing and Climate
- Analysis of what's working and what is not

** This analysis will test theory against approved projects.*

PURPOSE AND GOALS - LASS

Why doing?

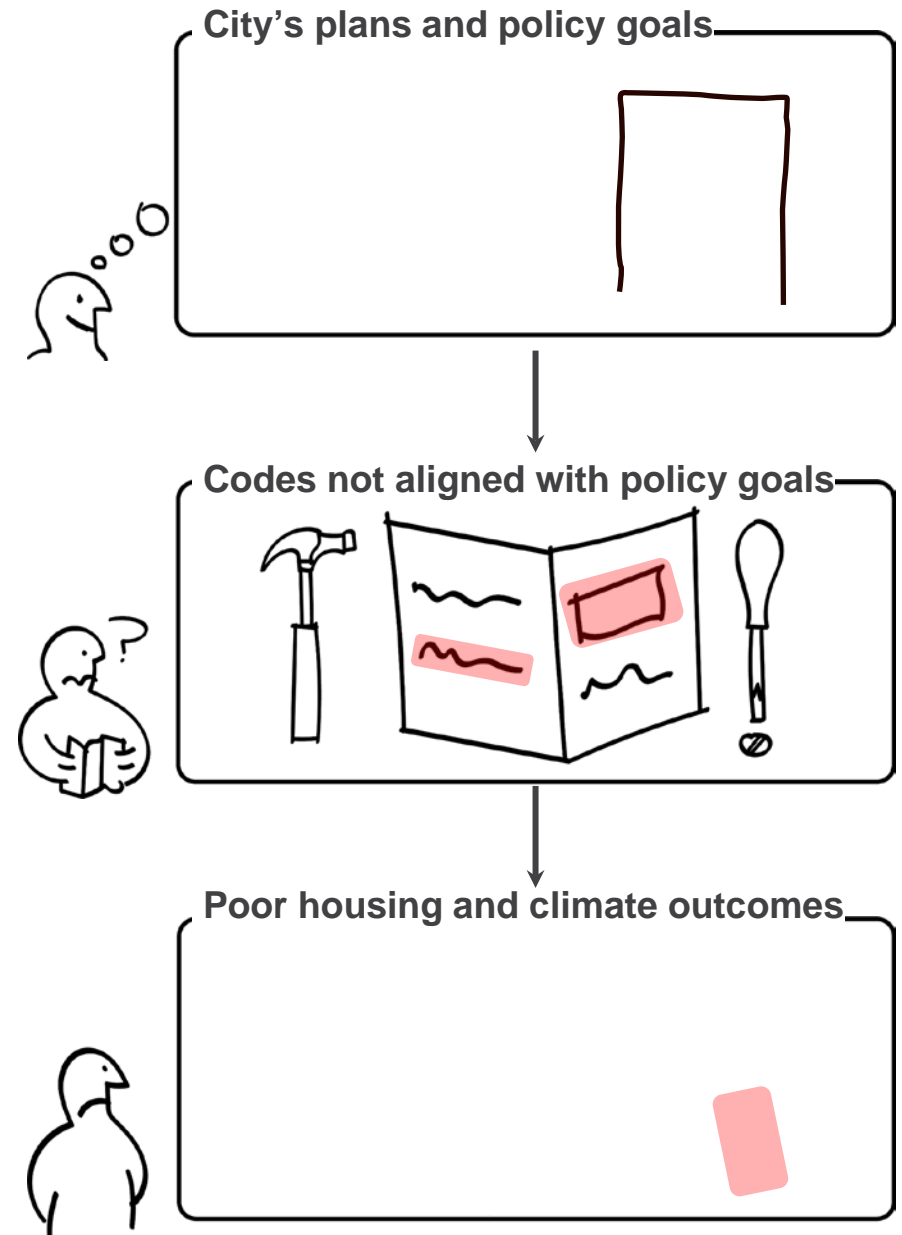
- Limited land left to develop and many needs
- Provides context for recommending “right-sized” code amendments
- Informs Regional Plan process



PURPOSE AND GOALS - CAP

Development codes are a key tool for achieving housing and climate goals.

- Plans and policies call for bold, urgent action.
- Codes are not functioning as an effective tool to implement plans and policies.
- Codes may prioritize other goals above housing and climate.
- Codes may have been written in a different context and are now out of sync with today's economic and climate realities.



THREE PHASES OF THE CODE ANALYSIS

DIAGNOSTIC

Identify and evaluate barriers, opportunities, conflicts.

Deliverable:

Code Diagnostic Report

Timing:

February/March 2024

CONCEPTS

Develop concepts and approaches for code updates.

Deliverable:

Code Concepts Report

Timing:

Summer 2024

RECOMMENDATIONS AND TESTING

Recommend specific code updates and test the impact of implementing the changes.

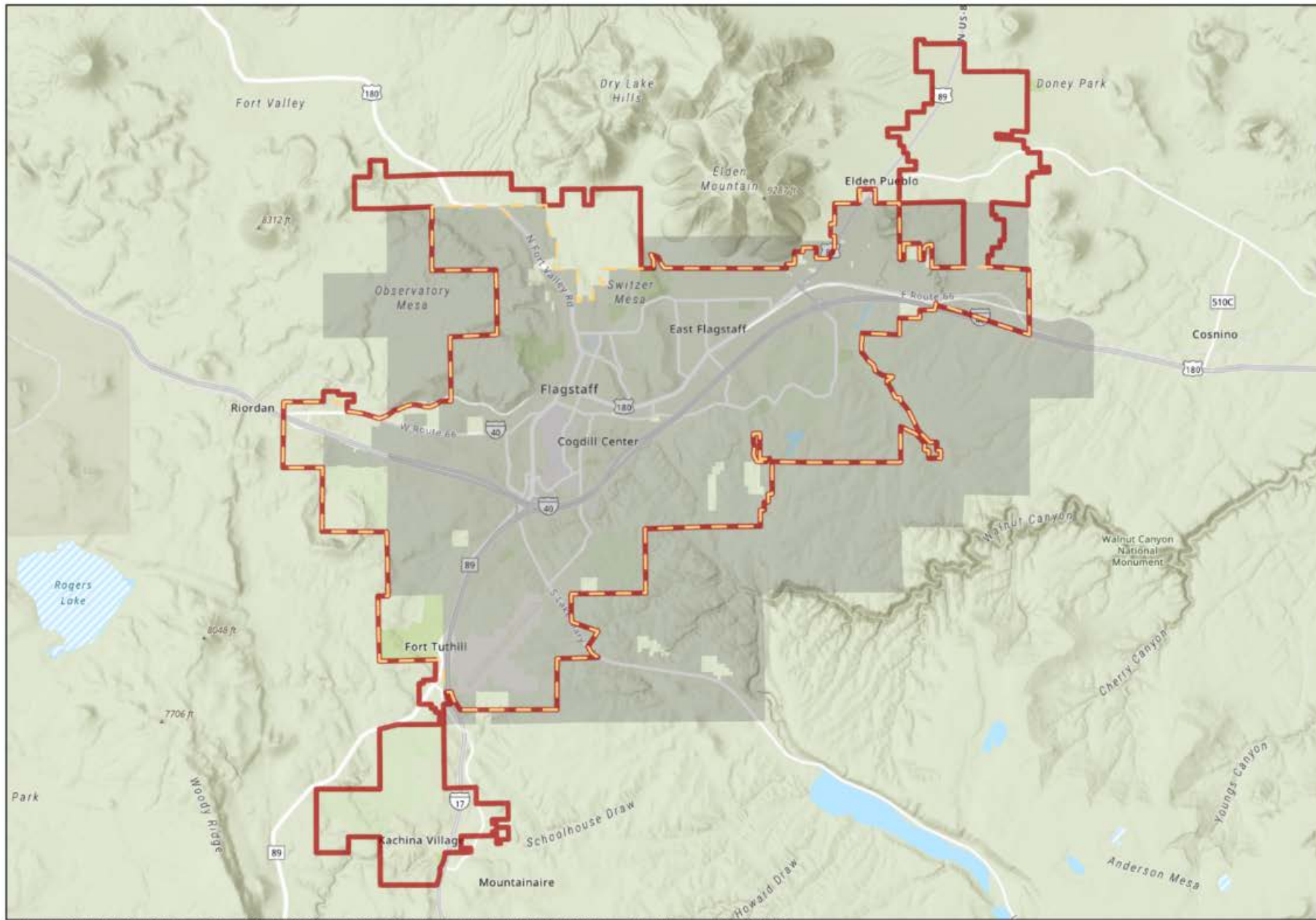
Deliverable:

Code Recommendations and Impacts Report

Timing:

Late Fall/Winter 2024

2. Land Availability /Site Suitability Project Findings



- Legend**
- Project Boundary
 - Flagstaff City Boundary
 - Urban Growth Boundary



Basemap: Esri, NASA, NOAA, USGS, County of Yavapai, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA

Study Area
City of Flagstaff Buildable Lands Inventory

Flagstaff, AZ



HIGH-LEVEL PROCESS





VACANT ACREAGE BY LAND USE – STUDY AREA

Land Use Category	Vacant Acreage	Vacant Parcels	Underutilized Acreage	Underutilized Parcels
Residential	6,735	1,826	5,046	1,640
Commercial	322	262	194	155
Industrial	388	118	92	25
Public	2,831	176	58	6
Split-Zoned	597	26	67	2
Total*	8,125	2,242	5,399	1,822

**The Public category includes all publicly-owned land regardless of underlying zoning, and therefore includes parcels and acreages that are also included in the other land use categories. The total has been adjusted to avoid double counting parcels and acreages that fall into the public category.*



VACANT ACREAGE BY LAND USE – CITY LIMITS

Land Use Category	Vacant Acreage	Vacant Parcels	Underutilized Acreage	Underutilized Parcels
Residential	5,382	1,383	1,335	435
Commercial	271	231	126	135
Industrial	353	103	92	25
Public	2,752	161	58	6
Split-Zoned	597	26	57	1
Total*	6,686	1,753	1,610	596

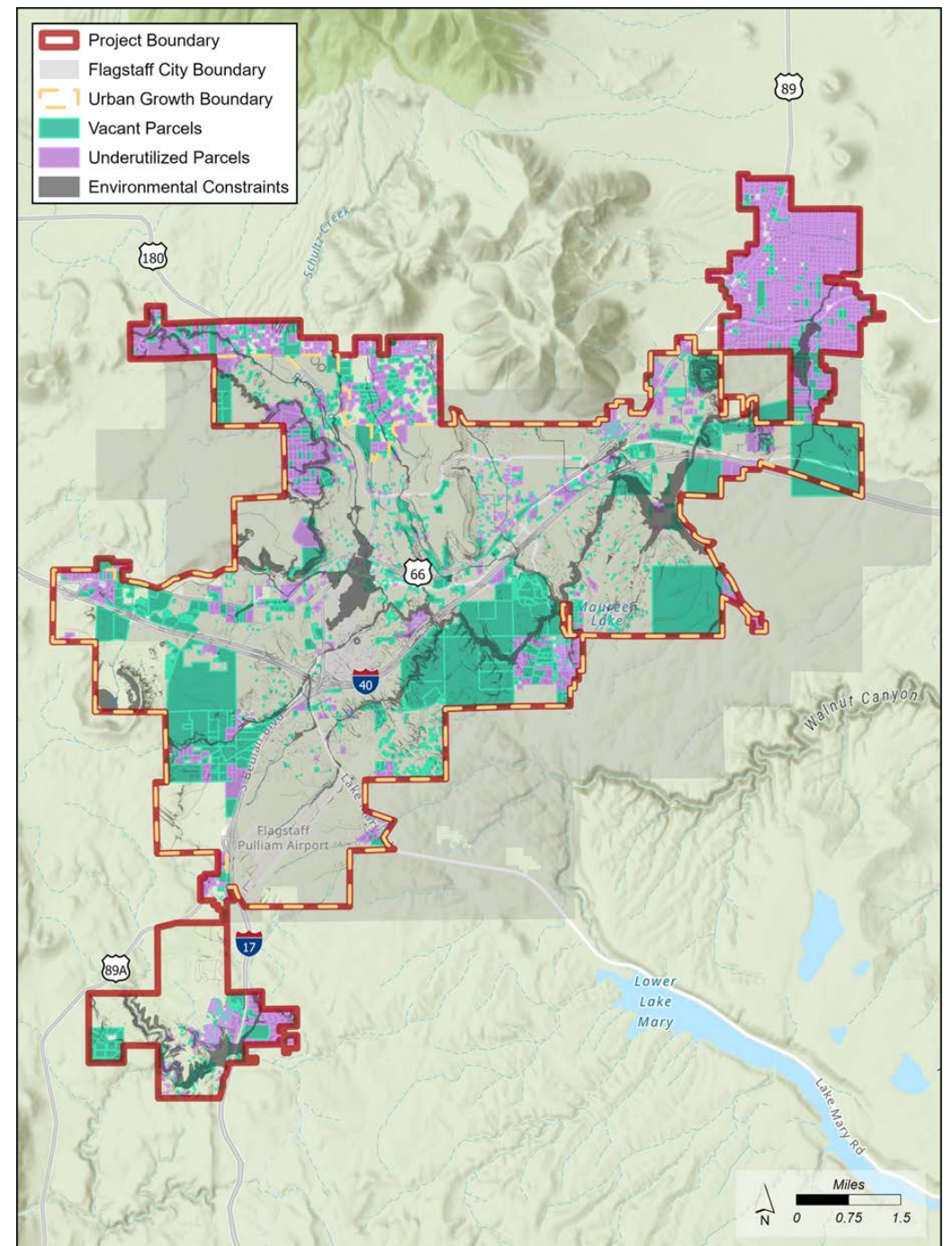
**The Public category includes all publicly-owned land regardless of underlying zoning, and therefore includes parcels and acreages that are also included in the other land use categories. The total has been adjusted to avoid double counting parcels and acreages that fall into the public category.*



LASS FINDINGS

Across the study area:

- Vacant Land: approximately 8,125 acres, spread across 2,242 parcels. Approximately 7,000 of these acres are unencumbered by environmental constraints.
- Steep slopes represented the greatest environmental constraint on sites.
- 6,735 acres of the vacant land are residentially zoned.
- Underutilized Land: approximately 5,399 acres, spread across 1,822 parcels. Approximately 4,865 of these acres are unencumbered by environmental constraints.





GENERAL CONCLUSIONS – OPPORTUNITY SITES

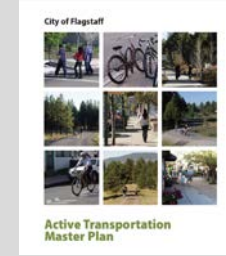
- **36 of the 51 Sites are Commercially-zoned** (totaling approximately 21 acres.)
- **Rural or Estate Residential – 9 sites, approximately 2552 acres.**
- ***Greatest potential for housing yield is in larger tracts requiring rezoning and significant infrastructure planning/investment.***



3. CODE ANALYSIS PROJECT: APPROACH AND METHODOLOGY

DISTILLING POLICIES AND GOALS INTO CLEAR OUTCOMES

PLANS



KEY OUTCOMES IMPACTED BY CODES

Housing

- Abundant Housing Supply
- Diversity of Housing Types
- Lower Cost Market Rate Housing Production
- Income-Restricted Affordable Housing Production
- Mixed Use Development and Neighborhoods
- Infill Development and Compact Land Use Patterns
- Equity and Fair Housing

Climate

- Community Resilience, Health and Safety
- Walkable Neighborhoods
- Safe and Inclusive Networks for Walking and Biking
- Transit Oriented Development and Transit Ridership
- Clean Air Status
- Adaptive Reuse and Preservation of Existing Housing Stock

- Inclusive Recreation
- Electric Mobility
- Clean Electricity
- Building Fuel Switching
- Reduced Building Energy Use
- Sustainable Consumption
- Water Security
- Healthy Forests and Open Spaces
- Carbon Dioxide Removal

SCOPE OF THE CODE ANALYSIS

Municipal Code

- Title 4: Building Regulations
- Title 5: Fire Code
- Title 8: Public Ways and Property
- Title 10: Zoning Code
 - Affordable Housing Incentives
 - Residential Sustainable Building Incentives
- Title 11: General Plans and Subdivisions
- Title 13: Engineering Design Standards
- Development Review Processes

Technical Manuals

- Transportation Impact Analysis Manual
- Incentive Policy for Affordable Housing
- Mountain Line Design Guidelines for Transit Facilities

METHODOLOGY

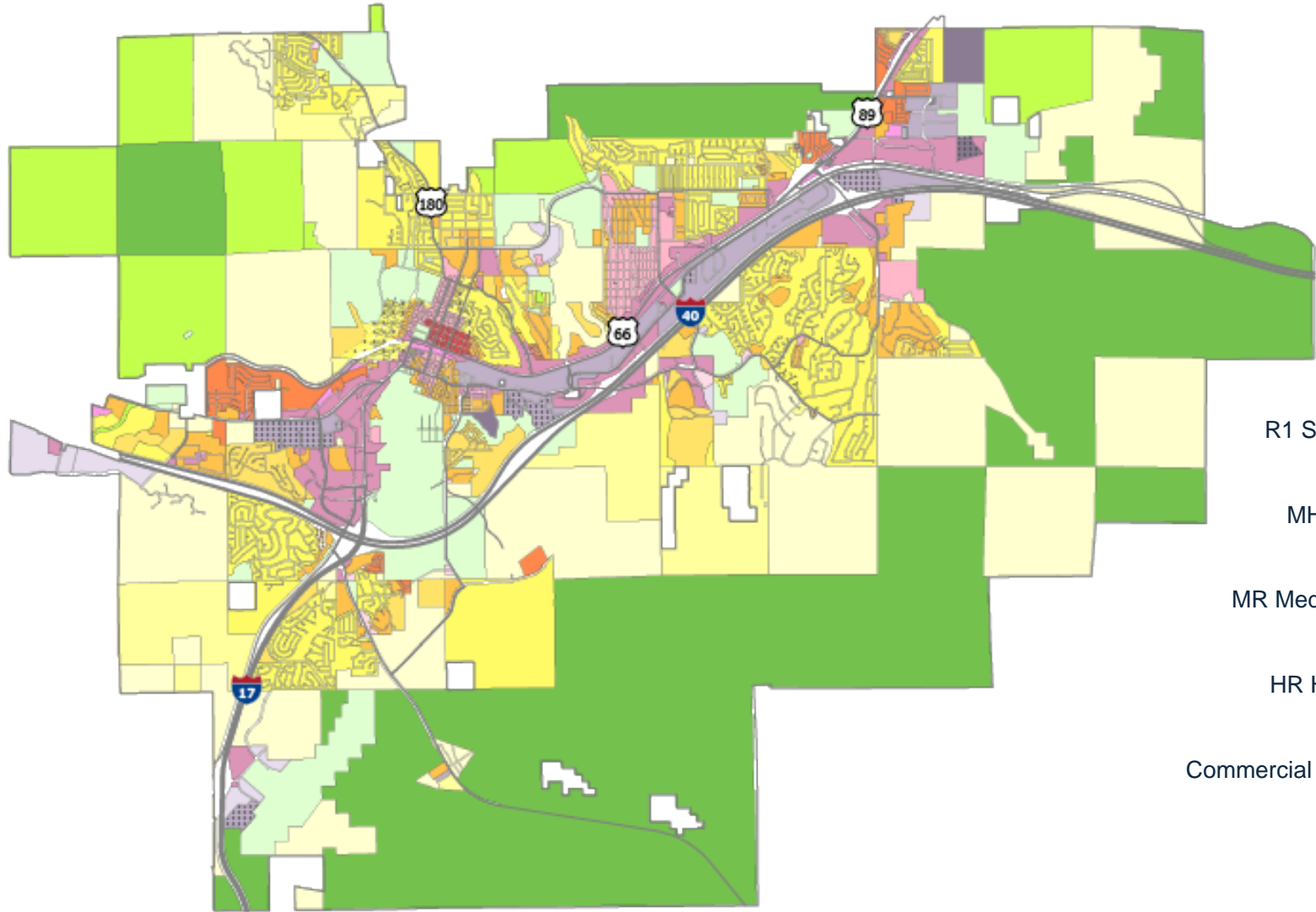
- Close review of code, process, and plan documents
- Discussions with City staff
- Development stakeholder meetings – soliciting feedback from local developers, engineers, and architects regarding potential barriers to affordable and sustainable residential development in the City
- A review of development case studies in the City
- Residential development site, building, and unit modeling

4. CODE DIAGNOSTIC KEY FINDINGS:

Zoning and Subdivision Codes

CONTEXT

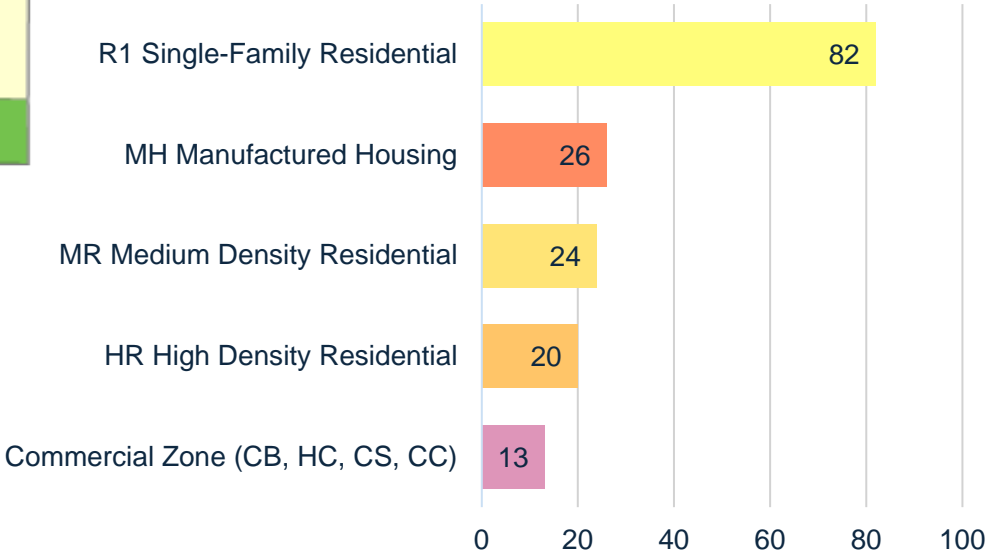
Where is the buildable land? What zones have the most capacity for new housing?



Acreeage of Buildable Land on LASS Opportunity Sites

RR
ER

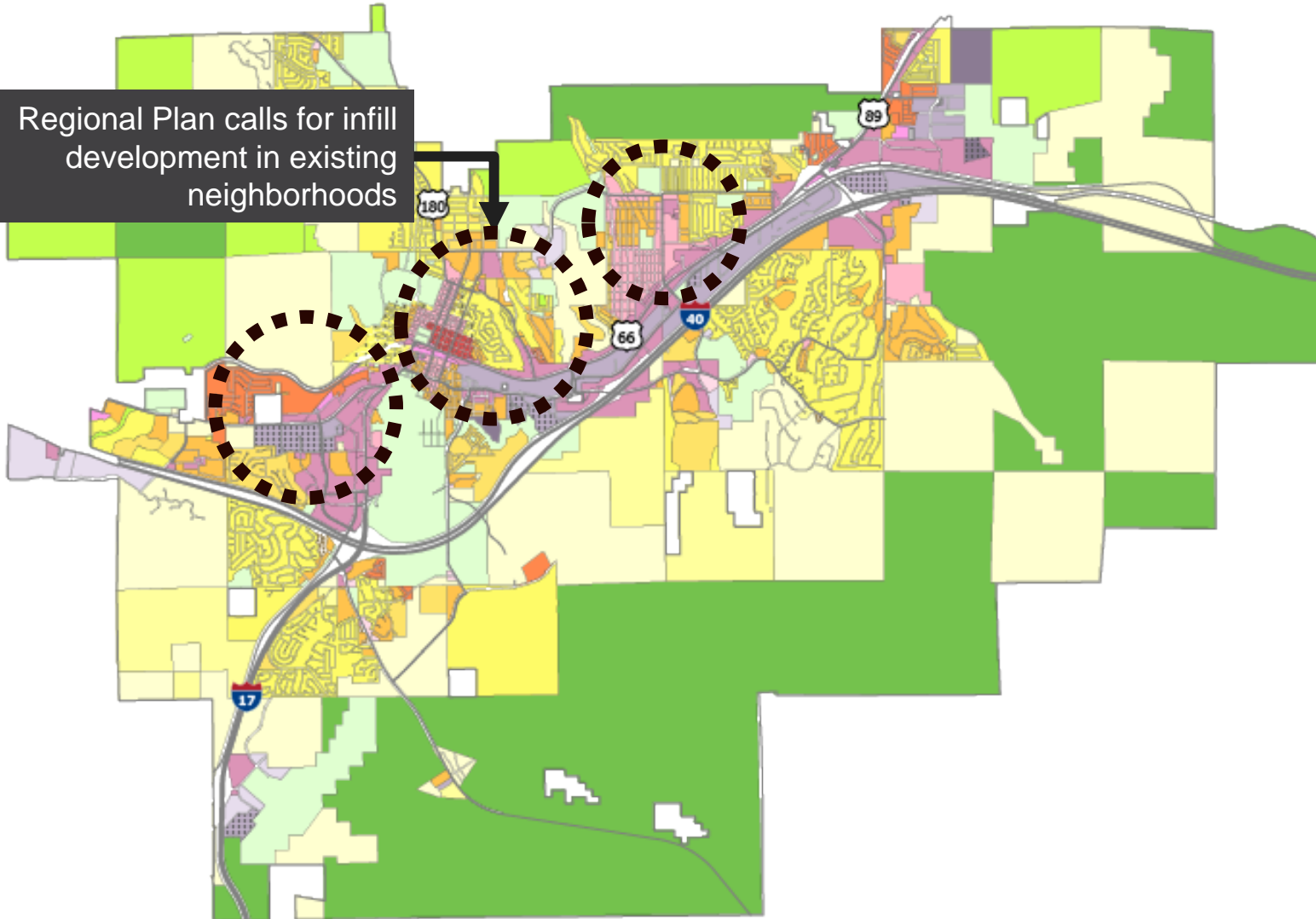
2,352
acres



CONTEXT

Where does the Regional Plan call for new housing to be prioritized to meet climate and housing goals?

Regional Plan calls for infill development in existing neighborhoods

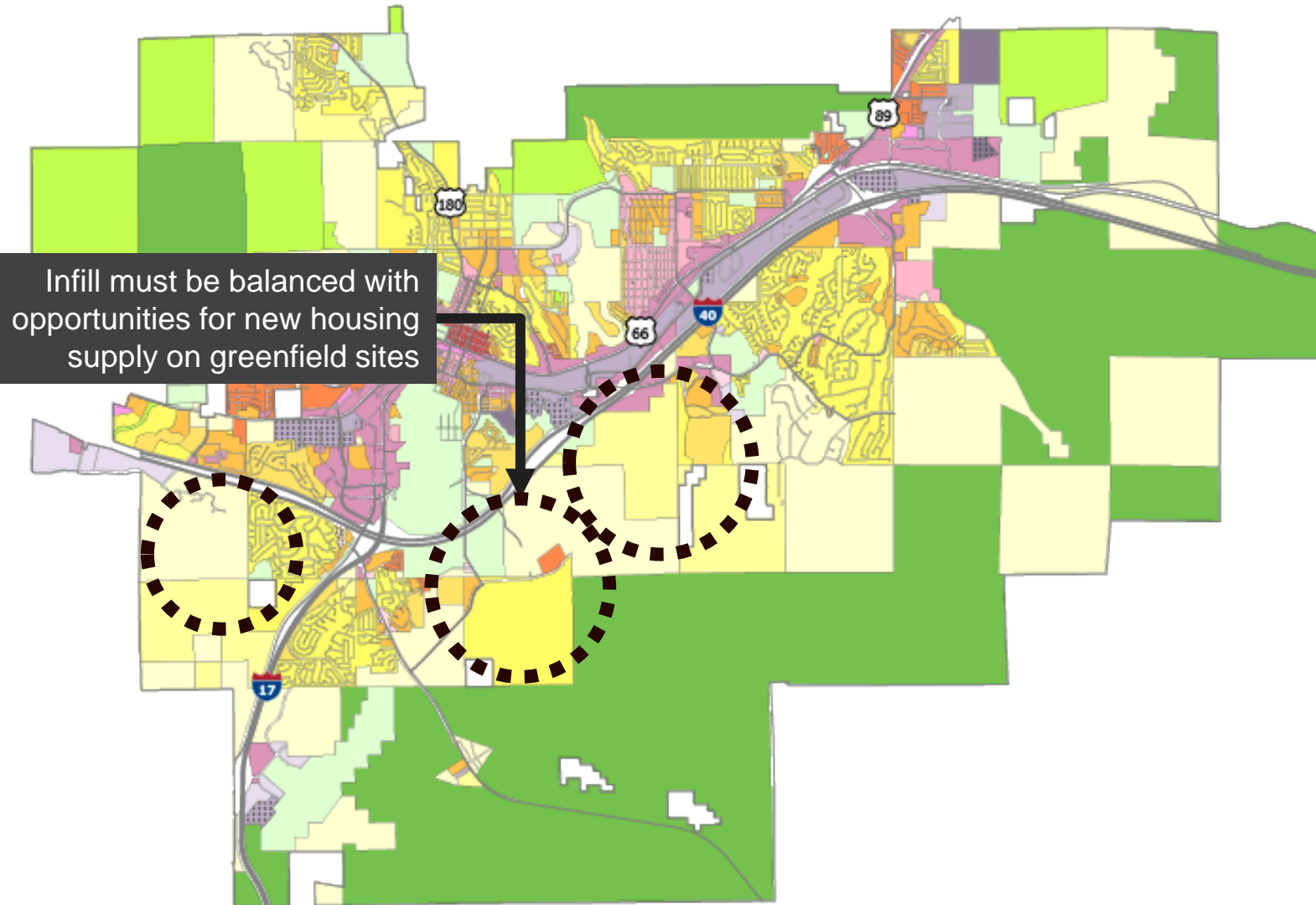


- Commercial zones are prominent in existing neighborhoods.
- Medium and high-density zones (MR, HR) are also important



CONTEXT

Where does the Regional Plan call for new housing to be prioritized to meet climate and housing goals?

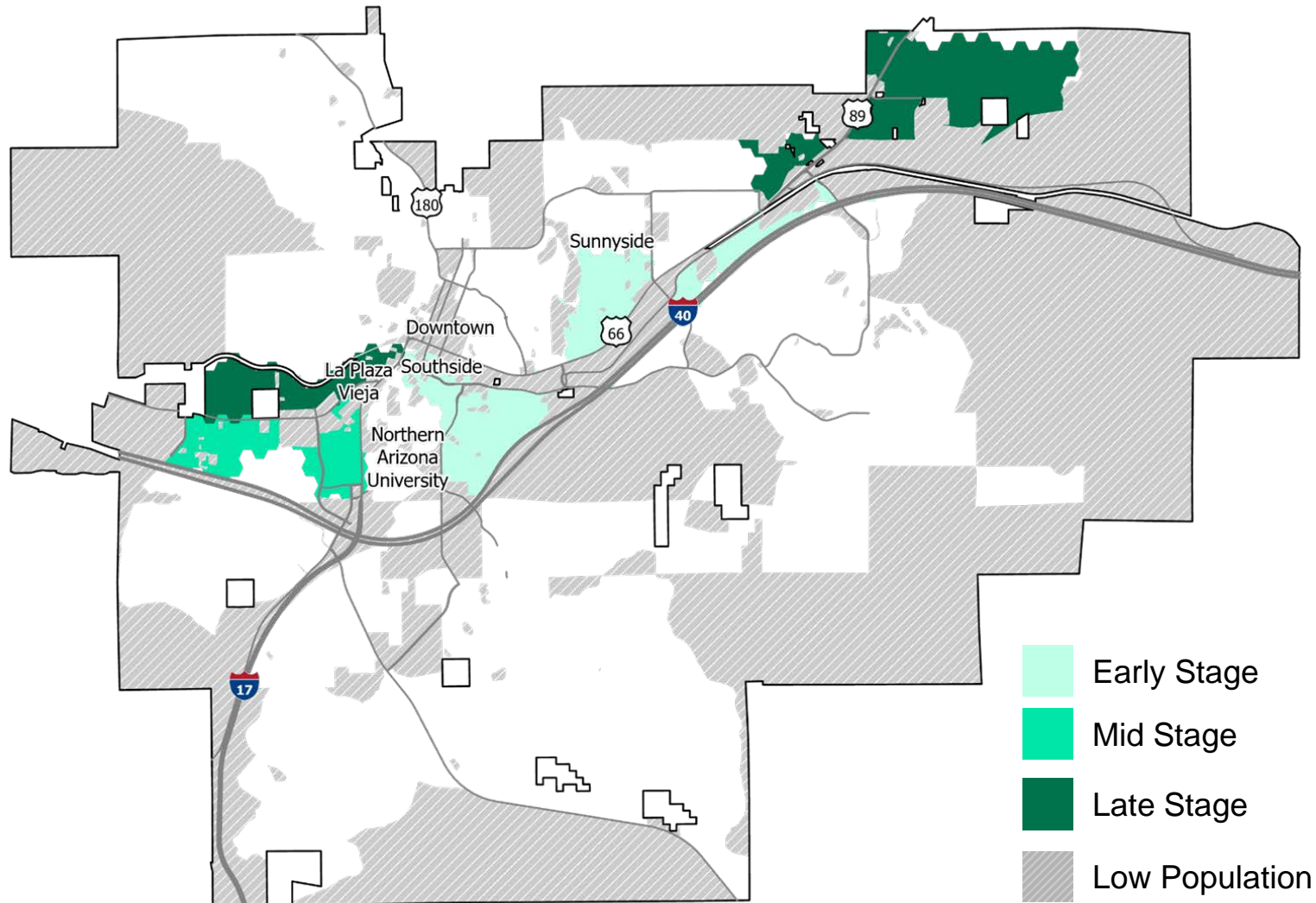


- How can the city ensure that rezoning and subdivision processes keep pace with housing needs?
- When rezoning occurs, will new development meet housing and climate goals?



CONTEXT

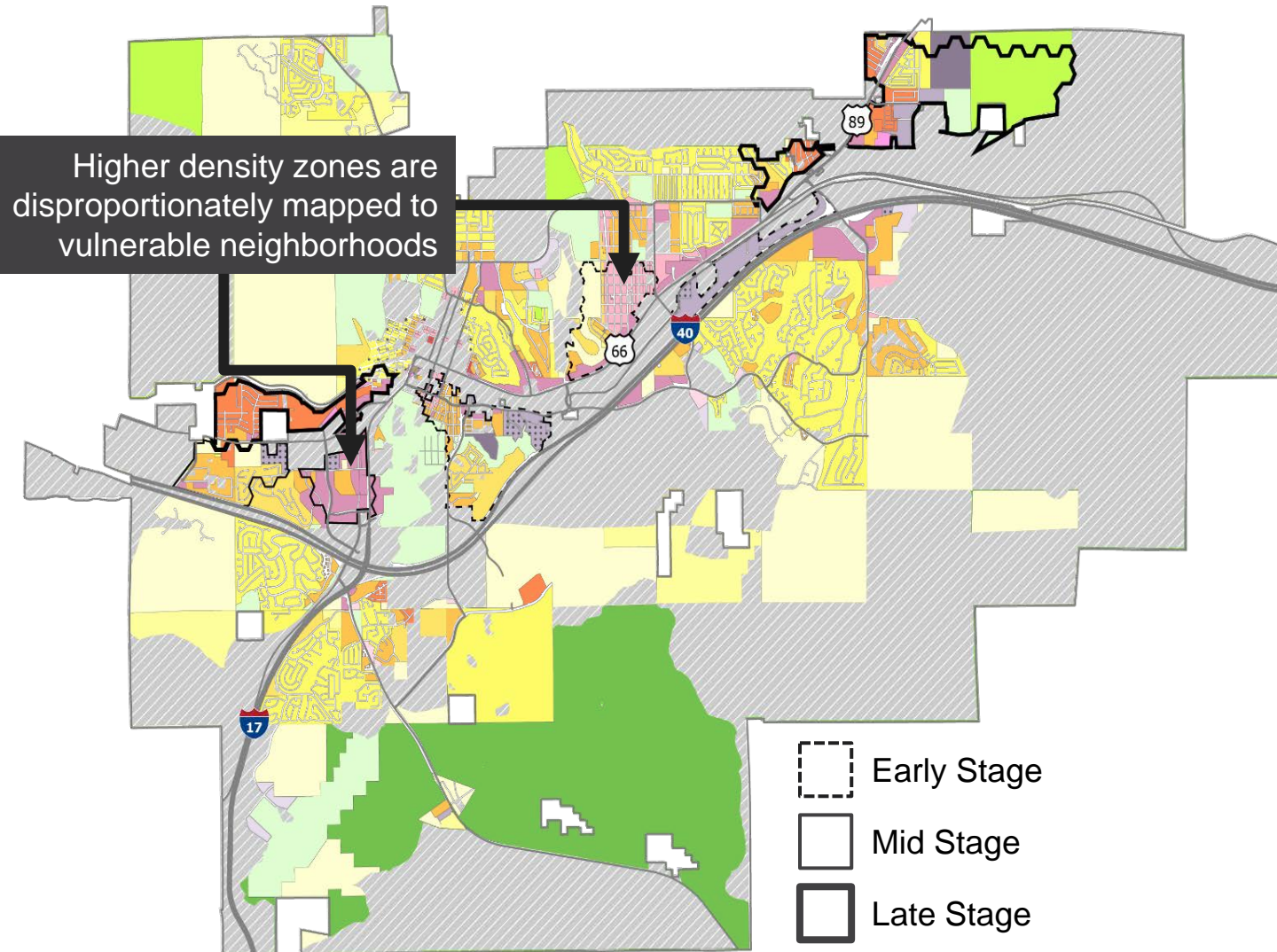
Where are the households that are vulnerable to displacement if housing production does not keep pace?



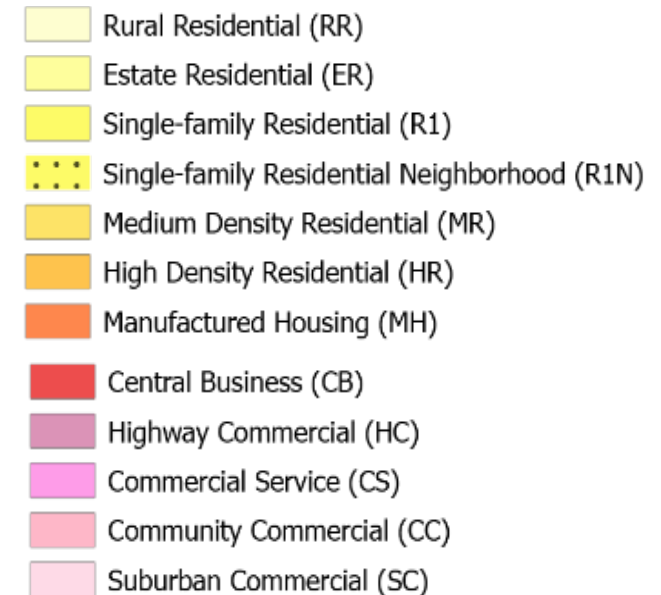
- Displacement risk evaluated using demographic and housing data
- Housing production has been found to prevent displacement
- New housing supply is needed both inside and outside vulnerable neighborhoods

CONTEXT

Where are the households that are vulnerable to displacement if housing production does not keep pace?



- If lower density zones do not keep pace with demand, this may shift demand to higher density zones
- To mitigate displacement, focus on reducing barriers to housing production and diversity in all zone districts.



Overview of Major Barriers and Issues

CITYWIDE ISSUES

- **Review Procedures.** Zoning map amendment and subdivision review process are deterring development and slowing the pace of housing production.
- **Affordable Housing and Sustainable Building Incentives.** Incentive programs are not economically compelling and undercut by other provisions.
- **Resource Protection.** The RPO is not optimized to balance housing production goals with environmental goals.
- **Minimum Parking Requirements.** Critical barrier to housing affordability, development feasibility, and climate goals for higher density housing in transit-served areas.
- **High Occupancy Housing.** Requiring a conditional use permit and other specific development standards are a critical barrier to high density housing.

ZONE-SPECIFIC ISSUES

R1/R1N

Low density and restrictions on housing type are inconsistent with housing and climate goals.

MR

Higher density allowance needed to encourage smaller, more affordable units.

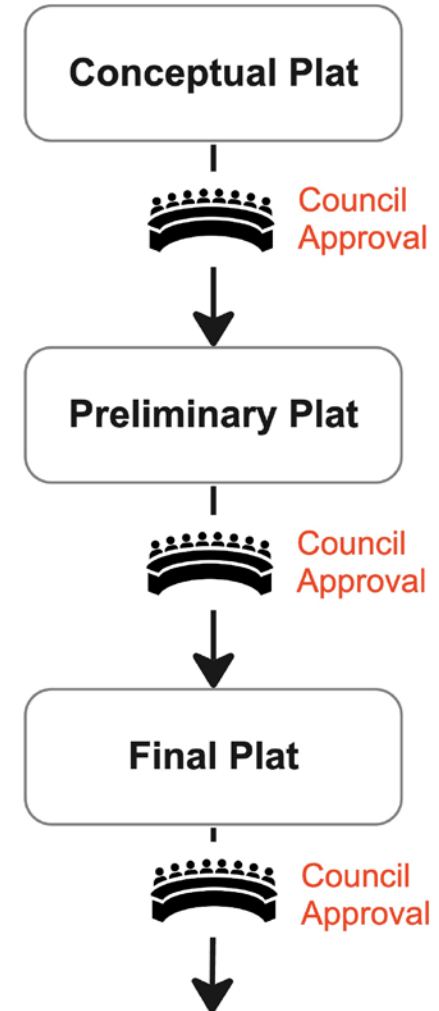
COMM. ZONES

Could provide for the higher densities that support goals, but parking requirements and HOH regulations severely limit this potential.

Review Procedures: Zoning Map Amendment, Subdivision

The zoning map amendment and subdivision review processes are slowing the pace of housing production.

- Requiring a Development Agreement is unnecessarily complex, limits flexibility, and deters rezoning.
- Development Agreements often focus on addressing citywide needs that are difficult for one project to satisfy
- The Concept Plat phase of subdivision process adds unnecessary cost and delay
- City Council approval of all subdivisions adds unnecessary uncertainty, cost, and delay.



R1/R1N

Single-Family Residential Zone

- Minimum lot size and minimum street width standards limit achievable density.
- Infeasible to deliver housing affordable to moderate income families at R1 density level
- Restrictive use regulations and low density discourage “missing middle” housing.
- R1 density levels are inconsistent with the City’s climate goals.

max density

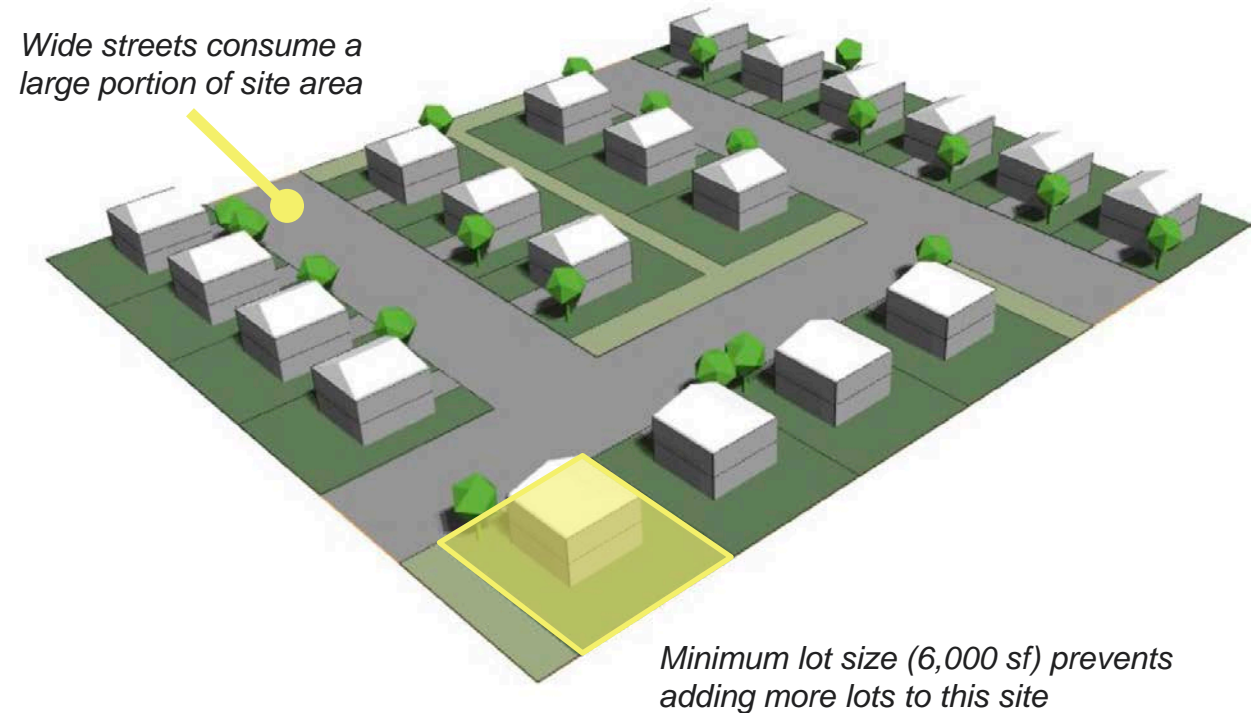
6.0

units per acre

achievable density

4.7

units per acre



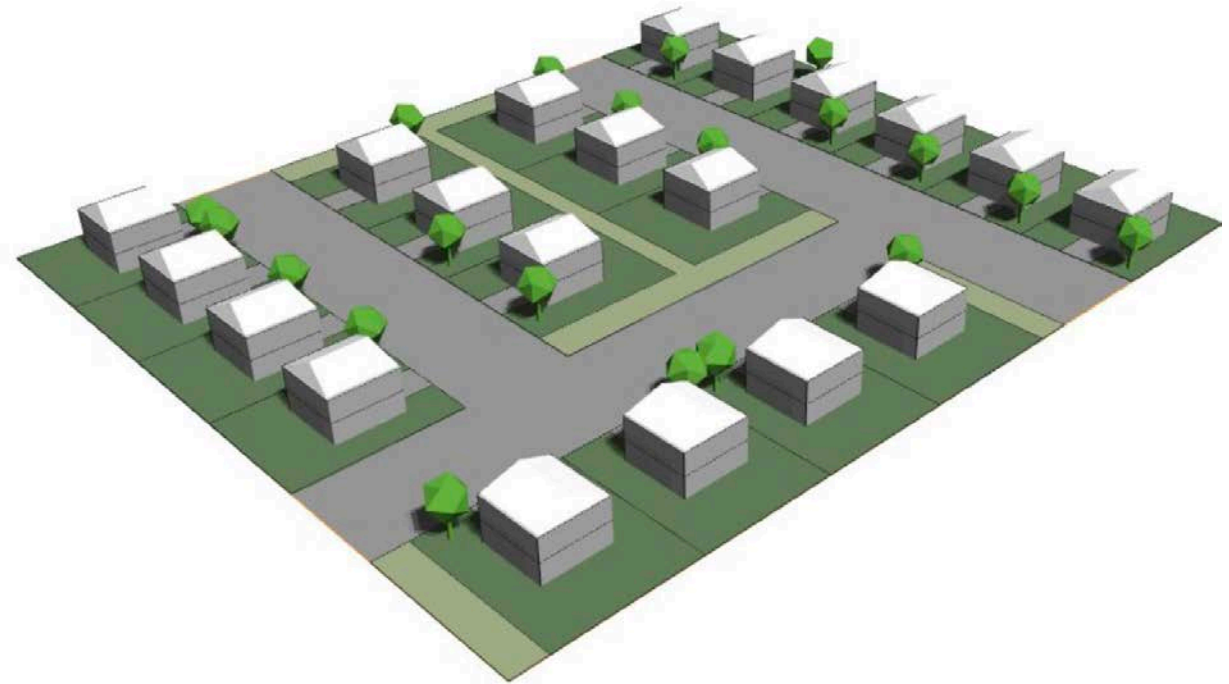
R1/R1N

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- R1 density levels are inconsistent with the City’s climate goals.

Min Feasible Price
\$942,800
for 2,000 sf unit

Min Household Income
275%
of Area Median Income



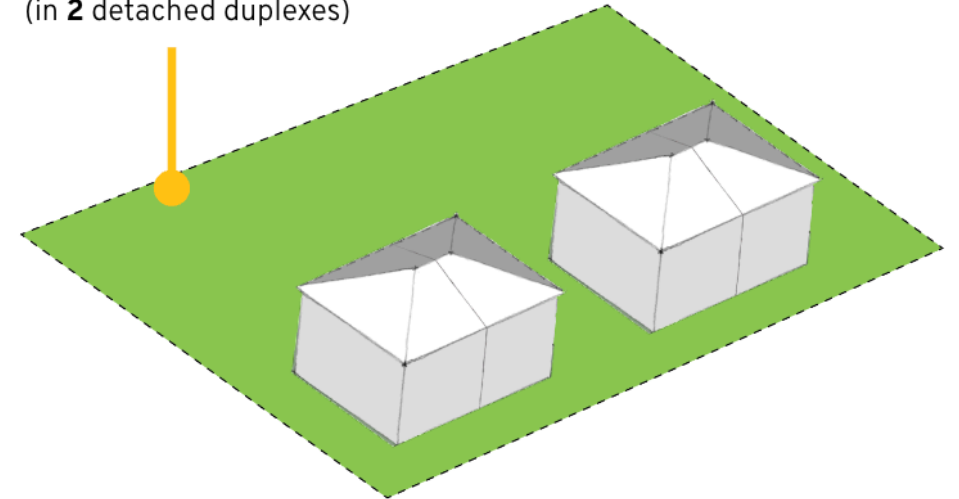
R1/R1N

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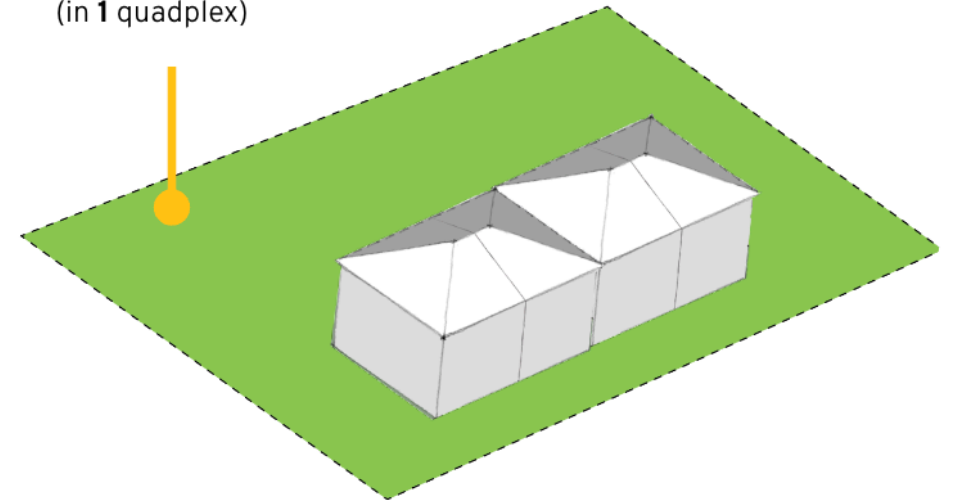
Allowed

4 Units
(in 2 detached duplexes)



Prohibited

4 Units
(in 1 quadplex)



R1/R1N

Single-Family Residential Zone

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- Infeasible to deliver housing affordable to moderate income families at R1 density level
- Restrictive use regulations and low density discourage “missing middle” housing.
- R1 density levels are inconsistent with the City’s climate goals.

max density

6.0

units per acre

transit-supportive density

8-15

units per acre



MR

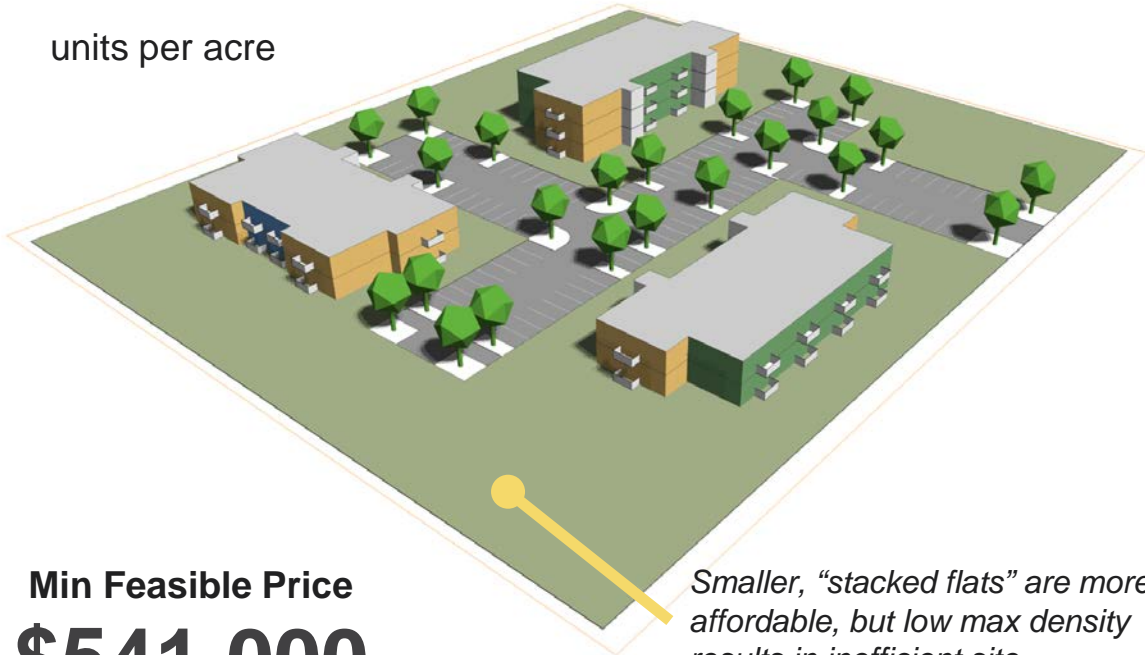
Medium Density Residential Zone

Variety of housing types allowed, but max density encourages larger, more expensive units.

Density

14

units per acre



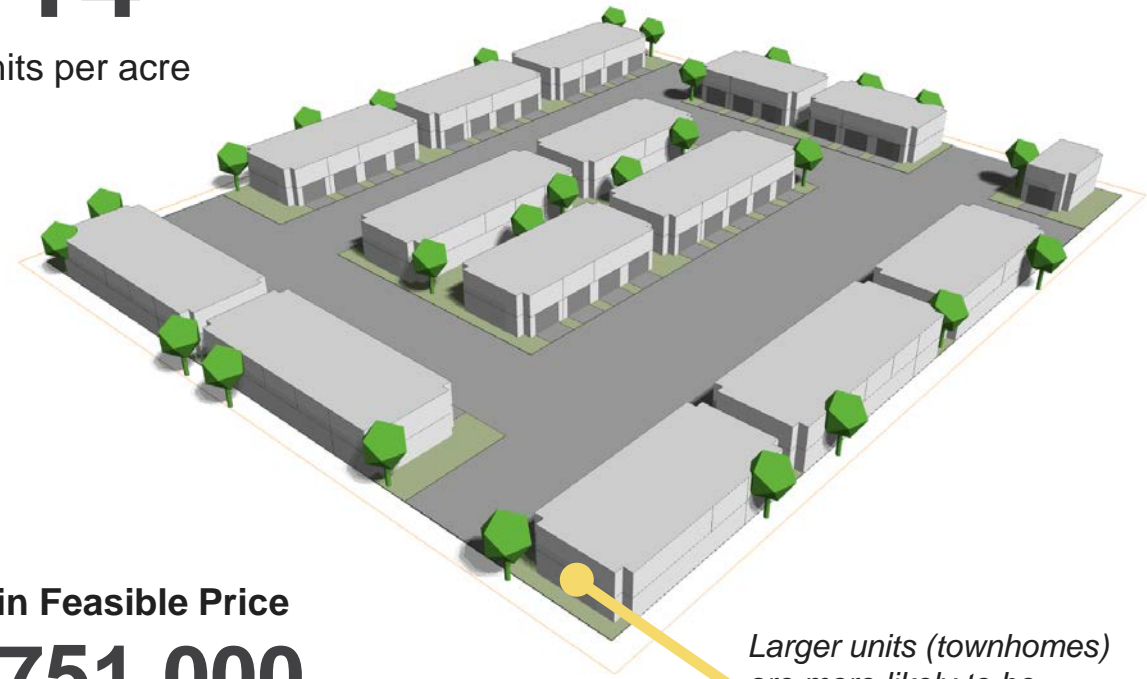
Smaller, "stacked flats" are more affordable, but low max density results in inefficient site

Min Feasible Price
\$541,000
for 880 sf unit

Density

14

units per acre



Larger units (townhomes) are more likely to be developed at this density

Min Feasible Price
\$751,000
for 1,660 sf unit

Resource Protection Overlay Zone

The RPO is not optimized to balance housing production goals with environmental goals.

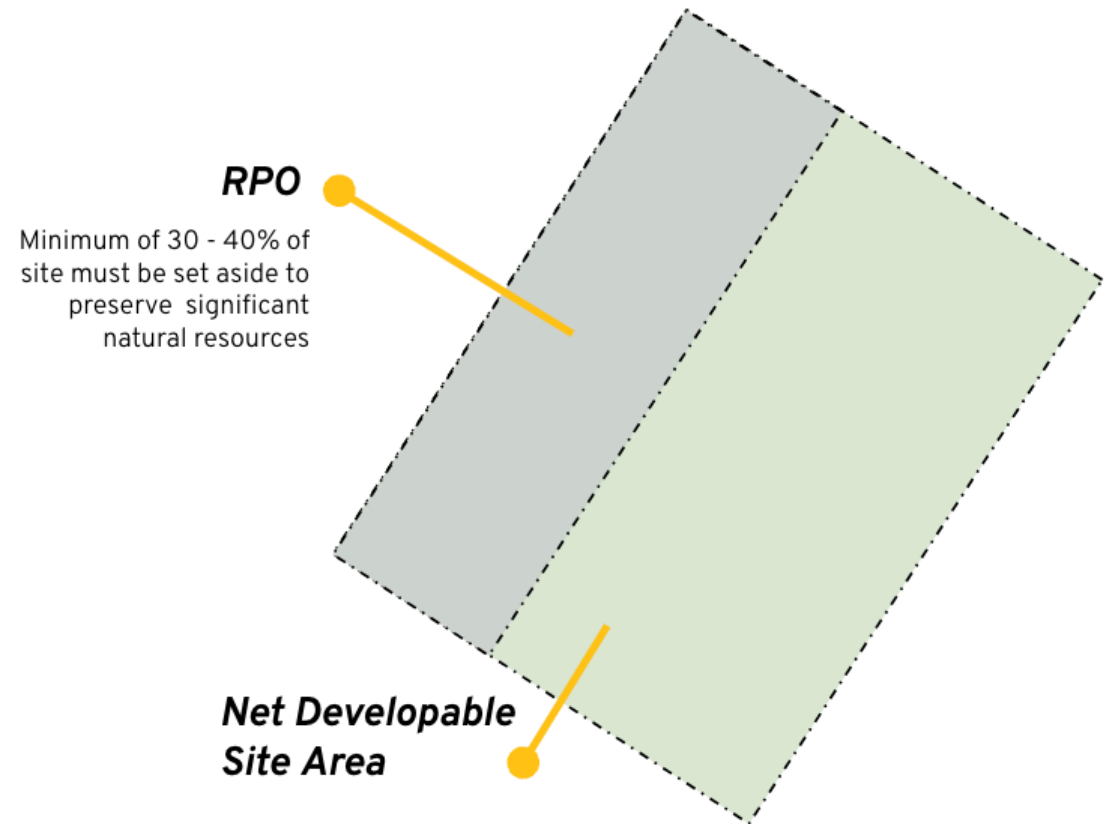
- Requires a large share of resources to be preserved on each site
- Does not allow forest and slope resource areas to be contiguous
- May increase fire risk due to proximity of residential structures to forest resources
- Limits density below the base zone in addition to requiring preservation areas

**Developable
Site Area**

1.0 acres

**Net Developable
Site Area**

0.66 acres



Resource Protection Overlay Zone

The RPO is not optimized to balance housing production goals with environmental goals.

- Requires a large share of resources to be preserved on each site
- Does not allow forest and slope resource areas to be contiguous
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Max. Density

14.0

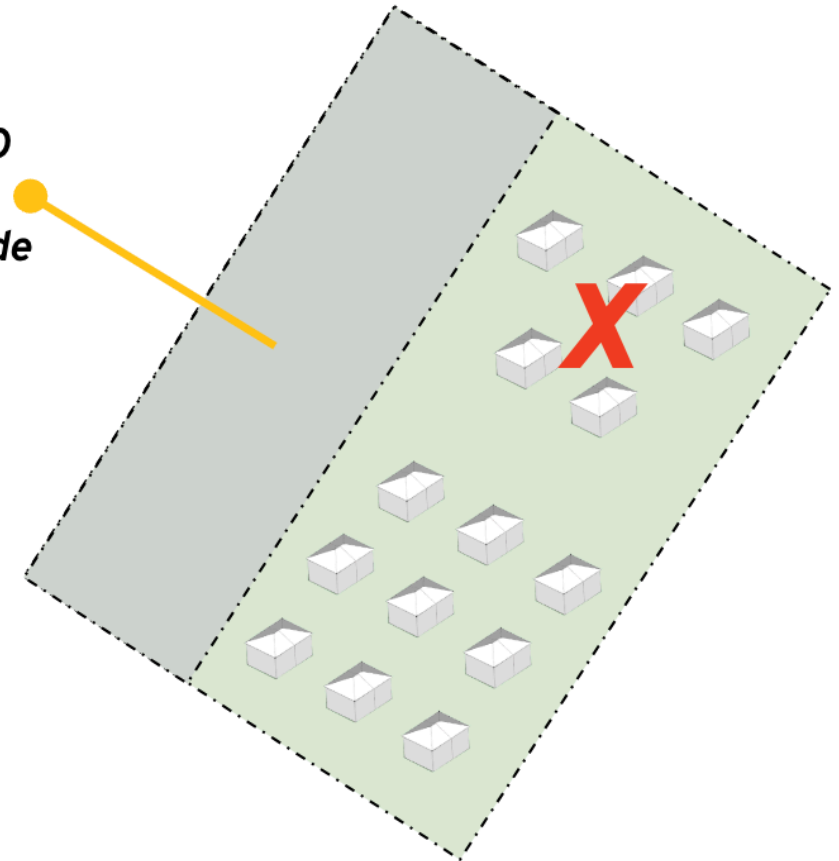
units per acre

*Max. Density
in RPO*

9.0

units per acre

*RPO
Set
Aside*

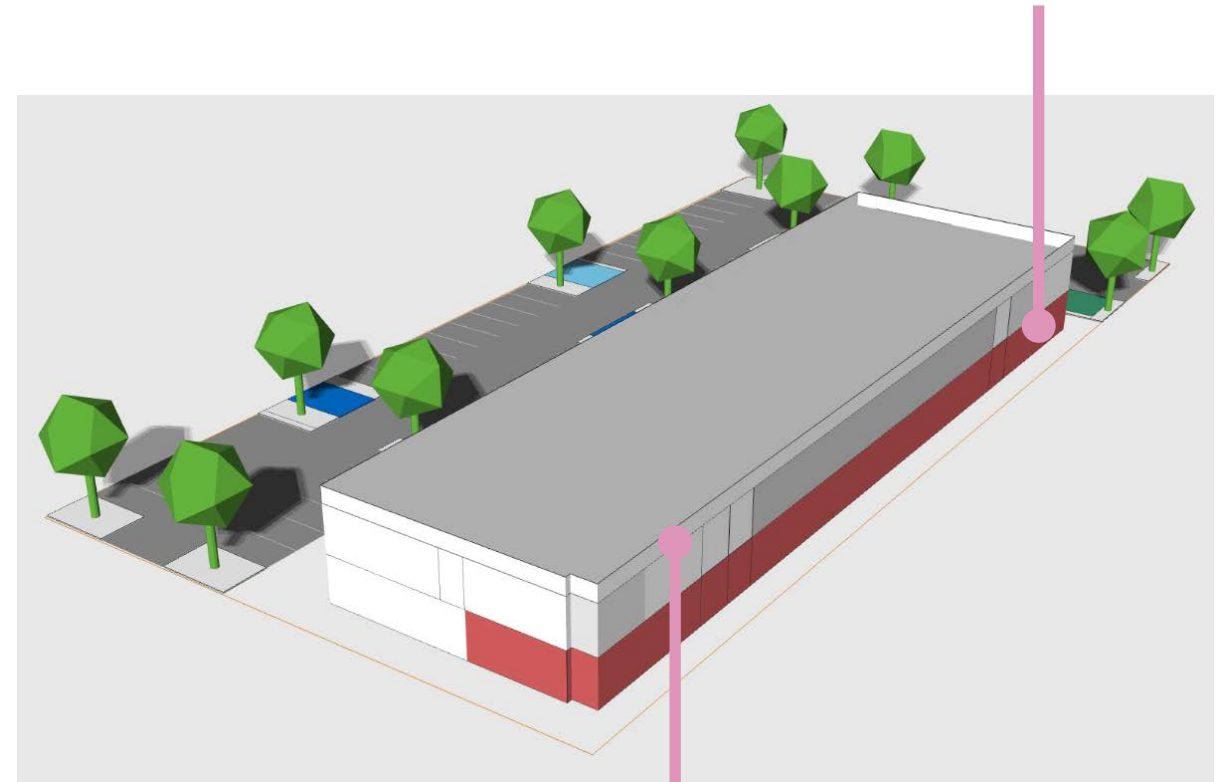


Commercial Zones

The code makes it challenging to build high-density housing in commercial zones

- Low maximum density (29 units per acre) is a critical barrier to lower cost housing and encourages an inefficient use of land.
- Requiring a CUP for a residential projects is not the most effective approach for balancing the desire for commercial uses.

Large amount of ground floor commercial space required unless applying for a conditional use permit



Density

29

units per acre

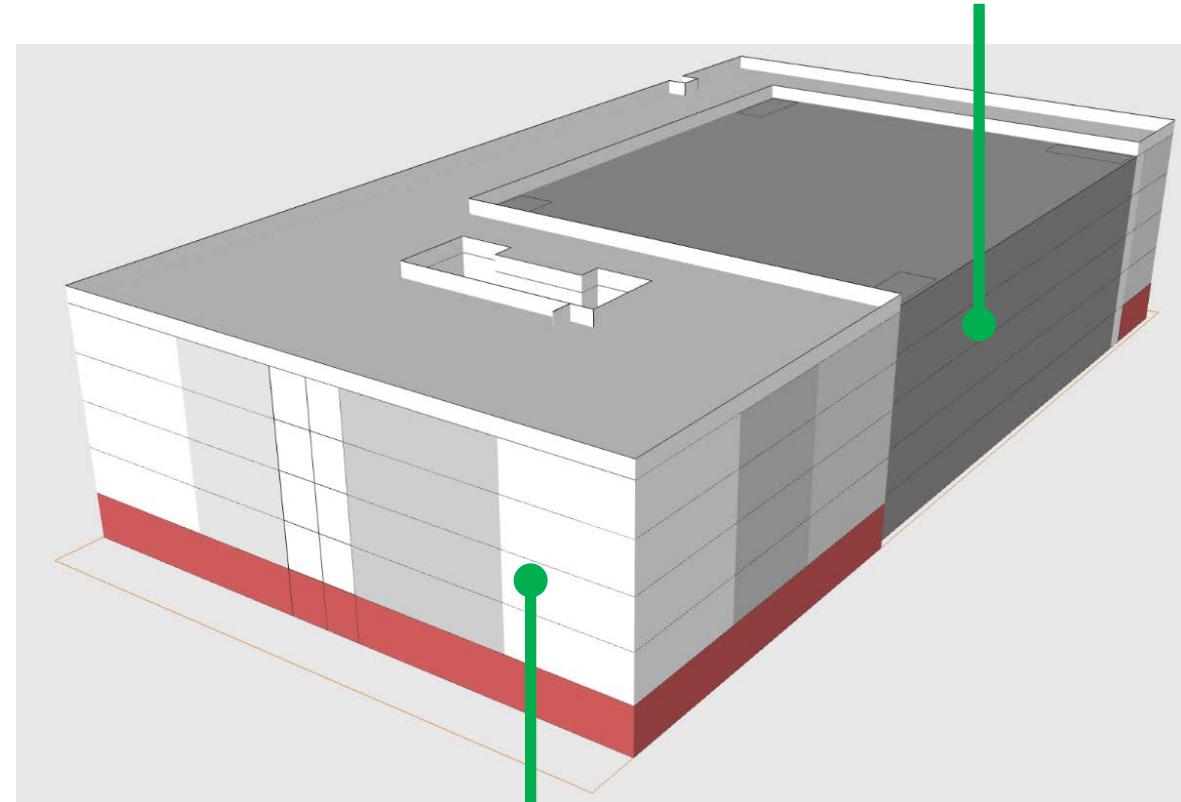
Density is maximized with only a two-story building unless applying for a conditional use permit for HOH.

Minimum Parking Requirements

Parking requirements are a critical barrier to housing and climate goals for high density housing in transit-served areas.

- Multi-level parking structures are costly and infeasible on smaller sites. Lower cost parking solutions are infeasible at higher densities.
- Higher greenhouse gas (GHG) emissions due to embodied carbon in concrete parking structures.
- Recent research has found that high parking requirements may directly encourage higher vehicle ownership.

Multi-level parking structure costs 5-10x to build than surface parking



Min Feasible Rent
\$3,880
for 780 sf unit

Wrapping the units around a parking garage results in large structures that do not fit on small sites

High Occupancy Housing Regulations

The Conditional Use Permit requirement for high density housing in commercial zones is deterring infill development.

- The CUP process raises uncertainty and risk of denial, deterring investment
- Dilute the effectiveness of the Affordable Housing and Sustainability Incentives
- Nullify the benefits of the Transect Zones
- Some standards add unnecessary costs, complexity, and equity concerns for multi-family housing.



HOH was implemented in response to large multi-family projects.



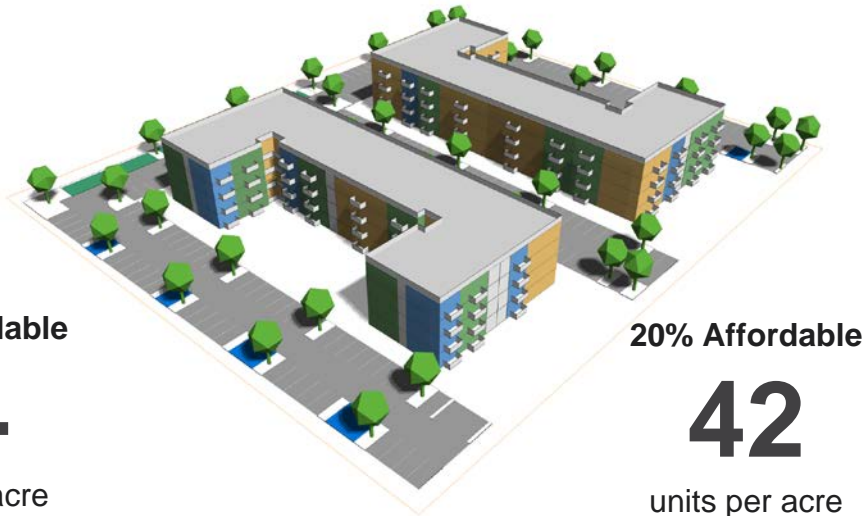
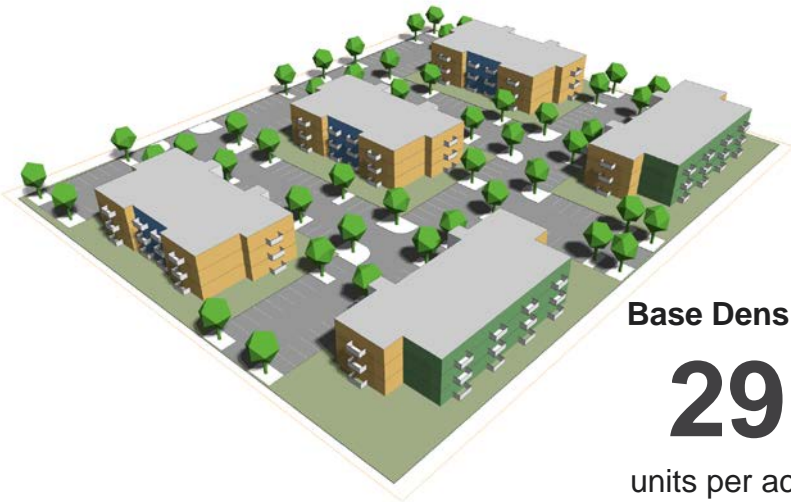
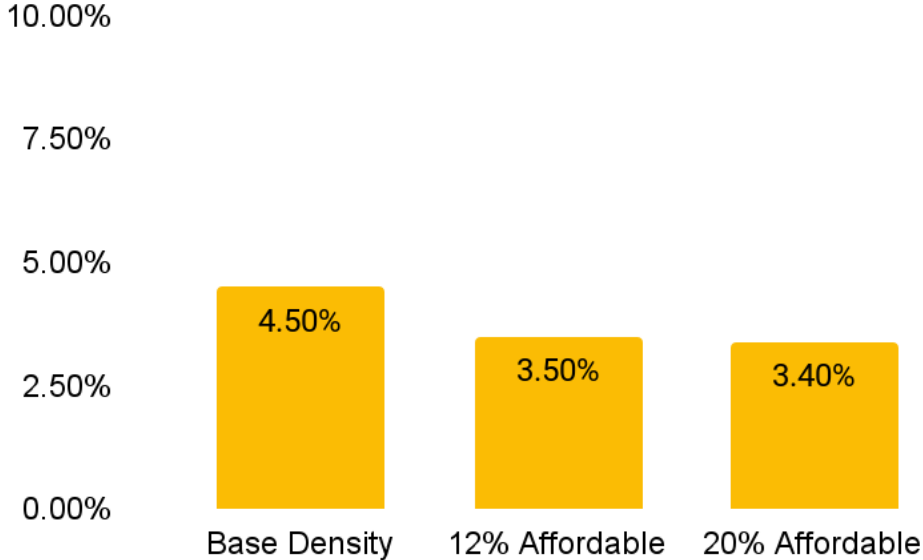
But also applies to this 12-unit condo building

CITYWIDE
ISSUE

Affordable Housing Incentives

- The costs of providing affordable units outweigh the benefits. Modeled financial returns were lower for projects that used the incentives, despite higher densities.
- There are alternative pathways to achieving similar benefits, diluting the relative value of the incentives.

Internal Rate of Return



Sustainable Building Incentives

Some sustainability features could be required, and others lack compelling incentives.

- Features such as water resource protection and electric vehicle charging may be more appropriate to require for most developments.
- All-electric buildings are essential to the City's carbon neutrality goals, **but many developers continue to build dual-fuel (electric/gas) projects.**
- Density bonus is not a compelling incentive for many projects because it is too low or not achievable while complying with other standards.



Tensions with Other Policy Goals

Addressing these barriers may require reconciling tensions with the City's other policy goals.

- The report identifies these six policy goals as potentially impacted by addressing these code barriers.
- Strategies for reconciling tensions with these policy goals will be evaluated in the Code Concepts and Code Recommendations reports.



**Community
Character and
Design**



**Infrastructure
Sufficiency/Funding**



**Historic
Preservation**



**Parking
Management**



**Resource
Protection**



Public Involvement

5. CODE DIAGNOSTIC KEY FINDINGS:

Engineering, Transportation Impact Analysis, and
Fire Access Standards

Stakeholder Comments - Examples

Some elements of current WSIA and TIA processes can be barriers to development.

- The requirement to conduct WSIA and TIA is often premature in the development process, requiring significant at-risk investment.
- There is an over-reliance on individual projects to fund transportation infrastructure versus a more reliable funding mechanism through the use of impact fees

Desire to allow narrower streets and alternative sidewalk and planter strip designs.

- Noted that it has been difficult to obtain City approvals for modifications to the base road designs.

WSIA Process:

- Costly and required for most developments
- In some areas of the City, existing infrastructure may have known issues – old and undersized mains in downtown (and the potential for developers to be required to take on broader improvements) discourages dense infill and redevelopment that might be desired in downtown.

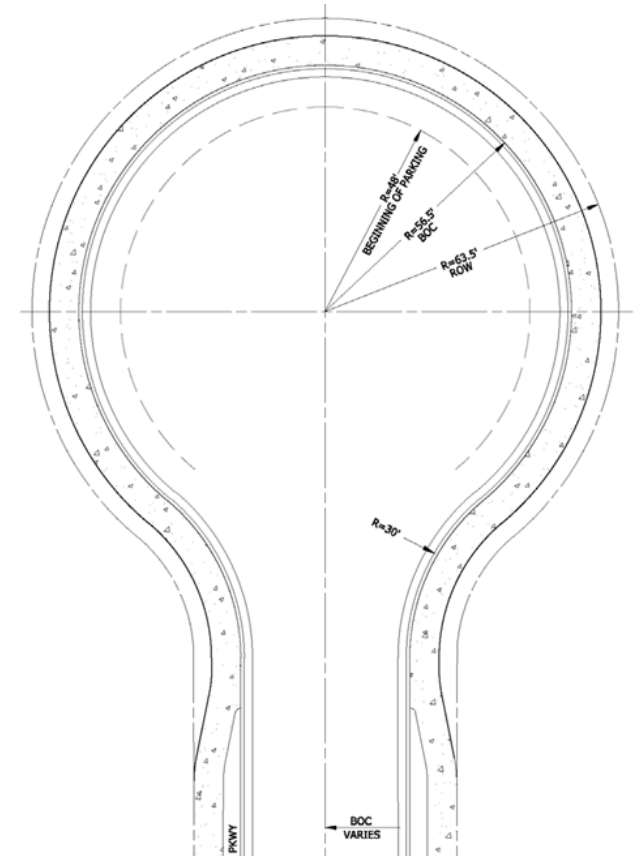
Flow Metrics:

- Metrics for assuming water and sewer demand in Tables 13-09-002-01 and 13-09-003-02 are from 1980 and may be overly conservative to actual use.

Transportation and Access

Code Issues

- **Street Cross-Sections** are wide, complex, and stakeholders have noted them to be highly prescriptive
- **Winter Parking Ordinance** leads to off-street parking, even when streets are designed to accommodate parking
- **Cul-de-Sacs** are commonly used and generally an inefficient development pattern
- **Setbacks on Alleys** conflict with the benefits of alleys promoting building-forward, pedestrian-oriented neighborhoods. The setbacks are wider than needed yet often not wide enough to accommodate parking
- **Driveway standards for multi-family development** are the same as for commercial development, triggering large driveway and parking areas that may be over-built for small (3-4 unit) projects.



TIA Requirements

Potential Issues

- Developers may decrease number of units to avoid triggering TIA thresholds if known off-site liabilities exist, reducing housing supply
- Concern about equity amongst development projects – standardized impact fees could help resolve this

6. CODE DIAGNOSTIC KEY FINDINGS:

Building Code

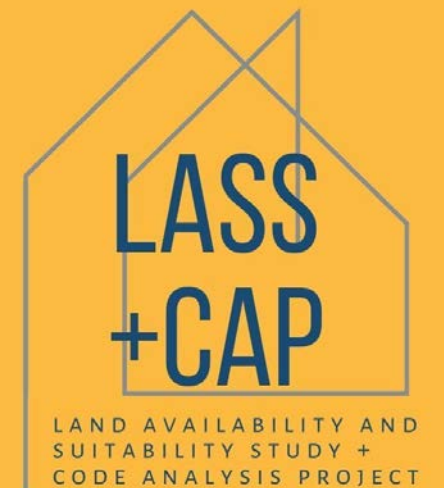
- **Affordable Housing and Construction Costs.** Building codes have a minor role in current escalations in construction costs. Research supports current drivers of higher cost are tied to labor, supply chain disruptions, higher financing cost and demand.
- **Adaptive Reuse.** Complex and highly variable issue that will vary project-by-project. A multitude of codes are triggered that typically challenge a project's viability.
- **Sustainability.** Misalignment between stakeholders and city goals. Sustainability is seen by the development community as a nice-to-have, expensive, non-critical feature. **Education on actual costs and benefits is needed to inform this narrative.**
- **Carbon Neutrality.** Need to elevate building performance beyond code through energy and water efficiency. There is no path to carbon neutrality without renewable energy. Policies needs to align with changes in market such as grid decarbonization.
- **Incentives.** City housing and sustainability incentives are not enticing to overcome financial barriers. Requires a suite of local, state and federal and utility incentives.

7. NEXT STEPS

KEY DATES

Code Concepts Report

- **January 22, 2025:** Planning and Zoning Commission
- **January 23, 2025:** Housing Commission
- **January 23, 2025:** Sustainability Commission
- **February 4, 2025:** City Council Update on Code Concepts
- **February 5, 2025:** Transportation Commission



5. QUESTIONS & DISCUSSION