



# REMOVING KNOWN BARRIERS: CHANGING ZONING TO HELP ELECTRIFY EXISTING HOMES

December 7, 2023 BAYREN Forum – Presented by Ori Paz



# AGENDA

- Background
- Barriers: previous garage and setback regulations
- Solution: change the zoning
- Approved Zoning Ordinance amendments
- Key takeaways



## BACKGROUND

- Climate Action Plan (CAP) adopted in 2020, updated 2021
  - Established priority strategies to reduce community GHG emissions
- CAP Strategy No. 1 – electrify 95 percent of existing buildings
  - Electrification means replacing gas-fired equipment with all-electric equipment
  - Electricity in the City of Menlo Park is carbon free from Peninsula Clean Energy
  - Replacing methane gas-fired (“natural gas”) equipment with electric equipment eliminates emissions and improves air quality
- Adopted all-electric new construction ordinance (2020)
- Explored version 2.0: existing building electrification (2022)
  - Learned about regulatory and other barriers
- Promote voluntary electrification
  - Permit fee waiver
  - Online resources and process improvements
  - Evaluation of regulatory barriers
  - \$4.5M for community-wide electrification award

# BACKGROUND: WHAT IS ELECTRIFICATION

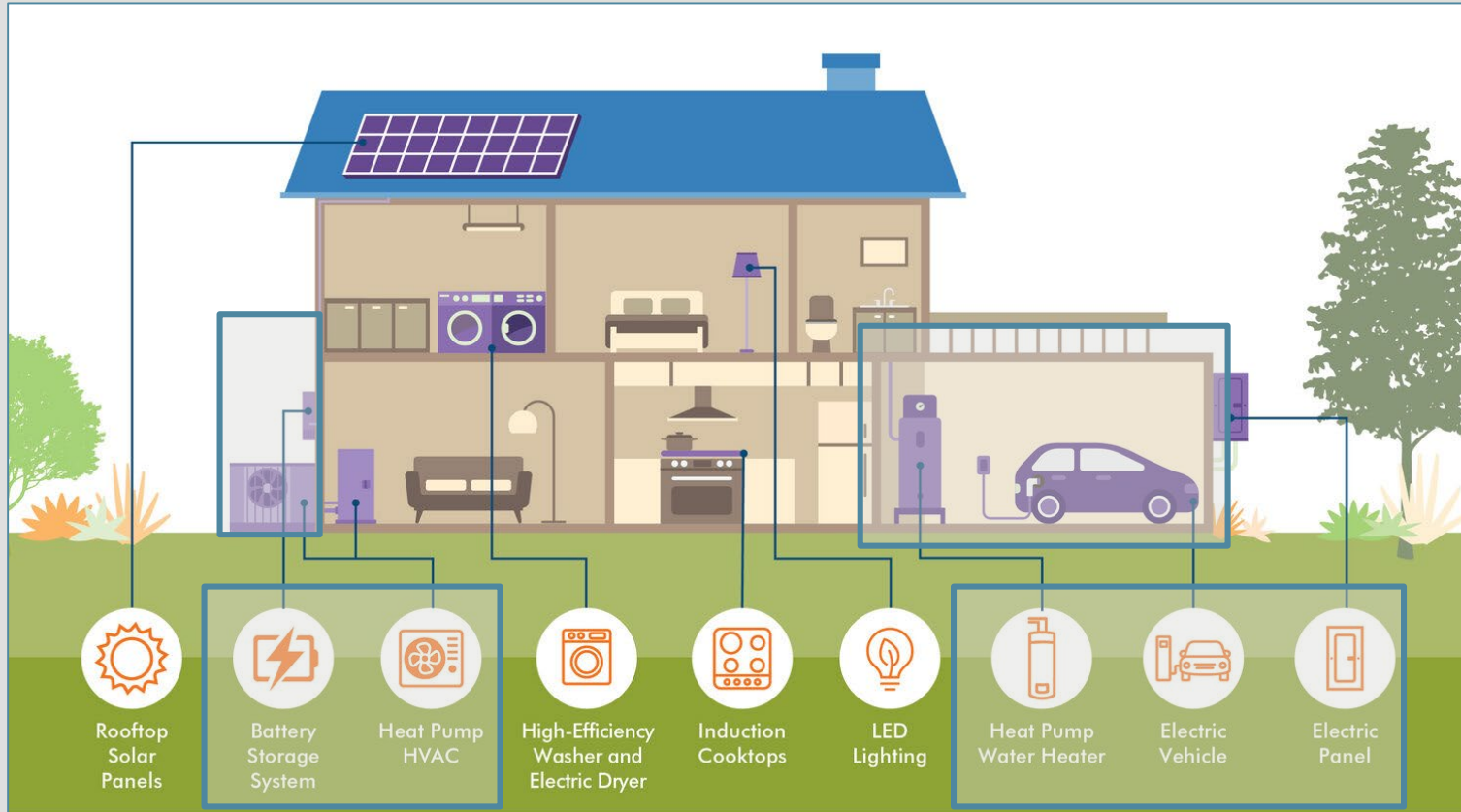
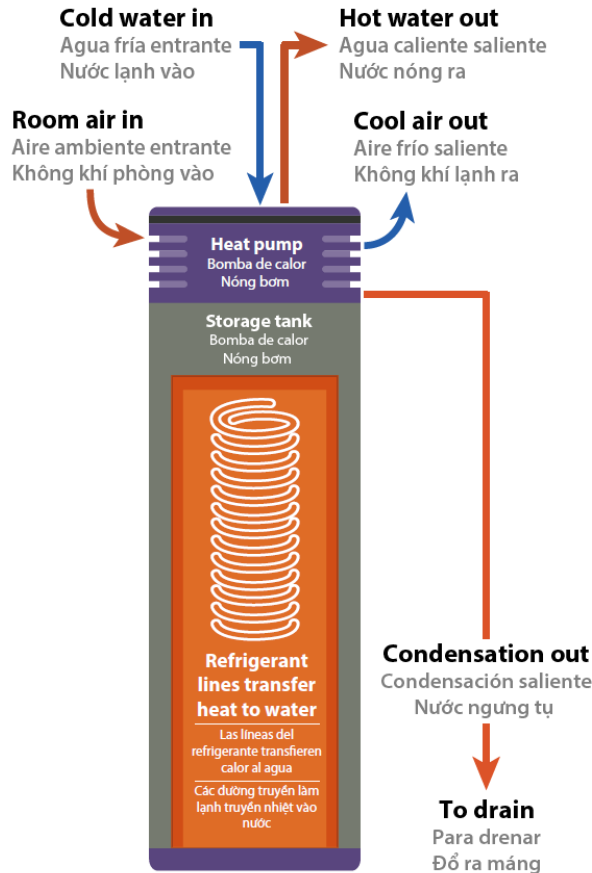


ILLUSTRATION COURTESY OF CITY OF PALO ALTO UTILITIES

Today's  
Topic  
Items



Graphic courtesy of San Jose Clean Energy



Photo credit: New Buildings Institute

## SPACE CONSTRAINTS

Heat pump water heaters (HPWHs) replacing gas equipment are often upsized to buffer slower heating time and cannot fit in the same place as the old equipment (e.g. 50 gal HPWH for 30 gal gas WH)

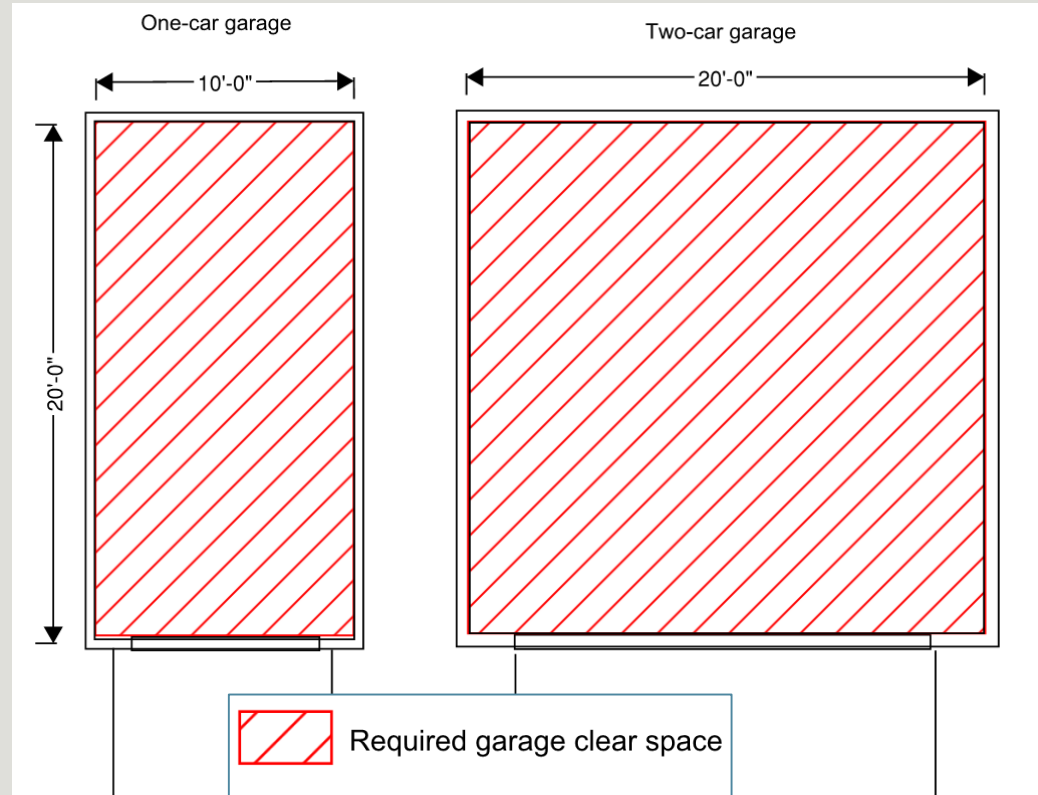


Image credit: Sonoma Clean Power

# BARRIER: GARAGE CLEAR SPACE REQUIREMENTS

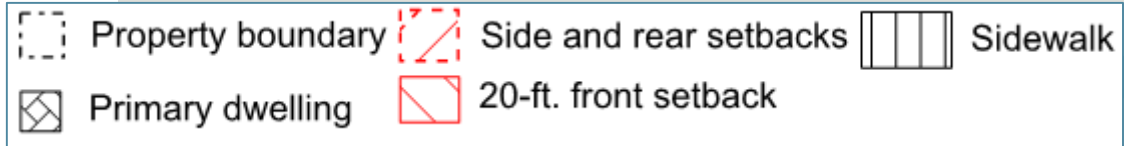
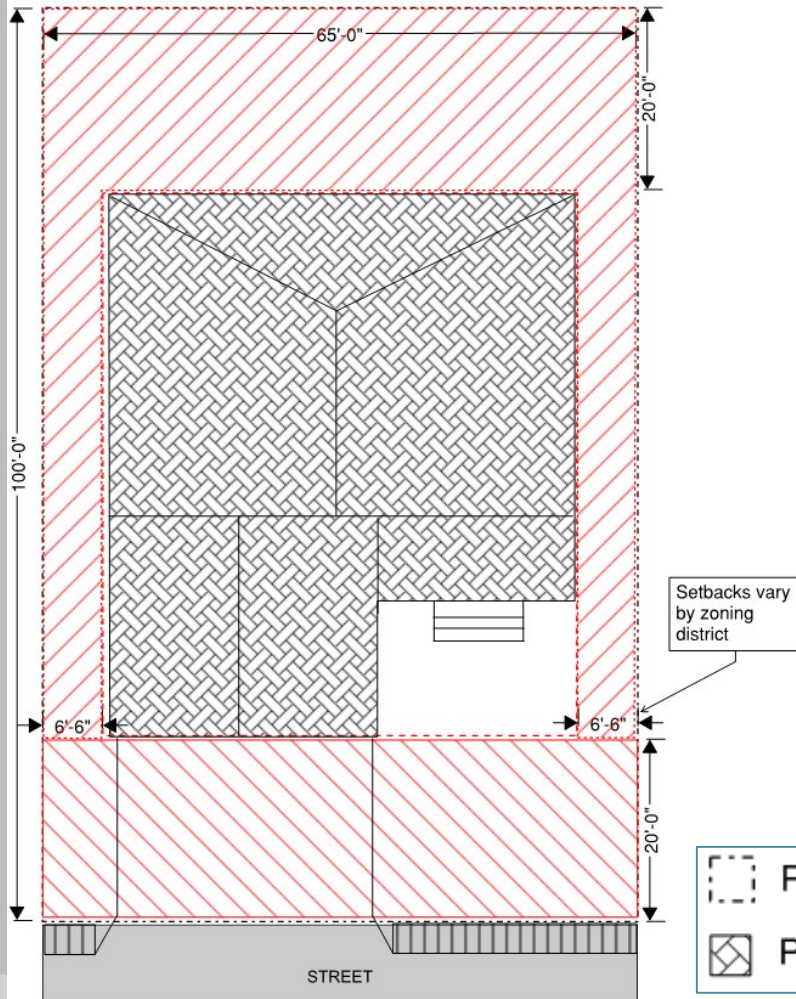


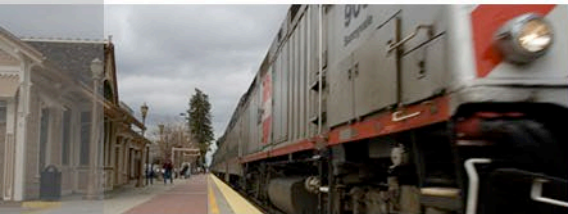
- Two off-street (on site) parking spaces are required
  - Minimum one covered and one uncovered for most dwellings
  - The covered space(s) must be 10 feet by 20 feet per vehicle
  - No overnight street parking allowed in Menlo Park
- Only vehicles were allowed within the required parking areas (garage clear space)



## BARRIER: SETBACKS

- Every property has required yards (setbacks) that limit how close buildings and structures can be to the property lines
- Certain equipment was allowed within the required yards (e.g. AC compressors, heat pump condensers, etc.)
- Protective enclosures were not allowed within setbacks





# SOLUTION: CHANGE THE ZONING

## Solution:

- Change the zoning to allow encroachments in garages and setbacks for electric equipment and enclosures



Menlo Park Municipal Code Help Text Size: - + A

REGULATIONS

- Title 6 (RESERVED)
- Title 7 HEALTH AND SANITATION
- Title 8 PEACE, SAFETY AND MORALS
- Title 9 ANIMALS
- Title 10 (RESERVED)
- Title 11 VEHICLES AND TRAFFIC
- Title 12 BUILDINGS AND CONSTRUCTION
- Title 13 STREETS, SIDEWALKS AND UTILITIES
- Title 14 (RESERVED)
- Title 15 SUBDIVISIONS
- Title 16 ZONING
- CROSS REFERENCE TABLE
- LEGISLATIVE HISTORY
- ORDINANCE TABLE

MENLO PARK MUNICIPAL CODE

A Codification of the General Ordinances of the City of Menlo Park, California  
CODE PUBLISHING COMPANY | Seattle, Washington

**Need Copies of the Code?**  
You can save titles, chapters, or sections of the code to your computer. Expand the table of the contents by clicking the **plus (+) signs**, then click the checkboxes to select as many sections as you want. Then click the **Print/Save Selections** button, and you'll be able to print all your selections together or save them in a variety of formats.

The Menlo Park Municipal Code is current through Ordinance 1101, passed August 29, 2023.

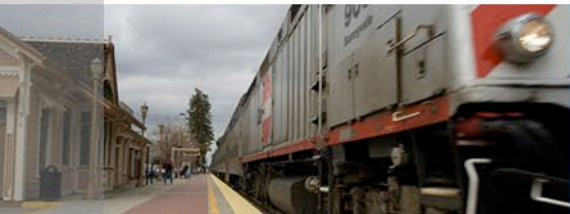
Disclaimer: The city clerk's office has the official version of the Menlo Park Municipal Code. Users should contact the city clerk's office for ordinances passed subsequent to the ordinance cited above.

Question 1: why are we making a change?

Question 2: how do we make the change?

Question 3: what do we change?





# IMPLEMENTING THE SOLUTION: CHANGE THE ZONING

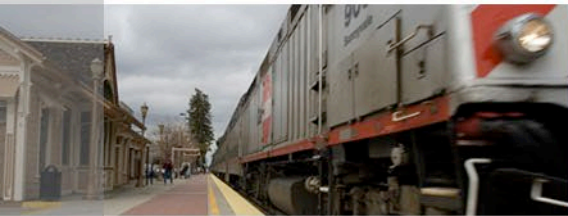


Question 1: why are we making a change?

To **make it easier** for residents in **existing homes** to **electrify**

Question 2: how do we make the change?

**Team work** with experts in other departments and **use the process**



# HOW TO AMEND THE ZONING ORDINANCE



I

Staff

Define the scope of ordinance changes

6/21/22

II

Environmental Quality Commission

Review and recommend to City Council

2/15/23

III

Planning Commission

Review and recommend to City Council

10/2/23

IV

City Council

Introduce ordinance and first reading

10/24/23

V

City Council

Second reading and adoption

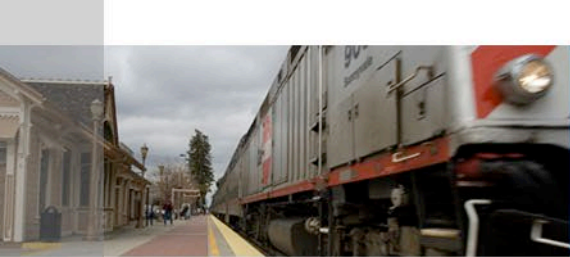
11/7/23

VI

Staff

Implement after 30-day wait period

12/7/23



# IMPLEMENTING THE SOLUTION: CHANGE THE ZONING



## Question 3: what do we change?

### Garages

Where is the garage  
clear space codified?



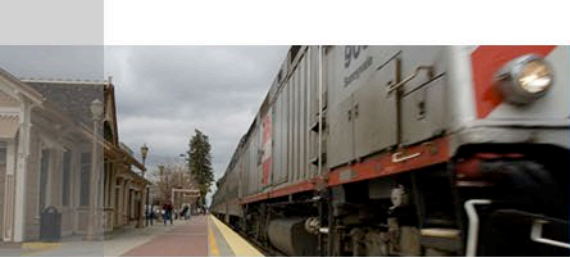
16.04 Garage definition

### Setbacks

Where are allowable  
encroachments codified?



16.60 encroachments and  
balconies



# IMPLEMENTING THE SOLUTION: CHANGE THE ZONING



## Question 3: what do we change?

### Garages

Where is the garage clear space codified?



16.04 Garage definition



16.72 Off-street parking

**16.04 NEW electric equipment definition**

### Setbacks

Where are allowable encroachments codified?



16.60 encroachments and balconies



16.04 floor area, building coverage definition

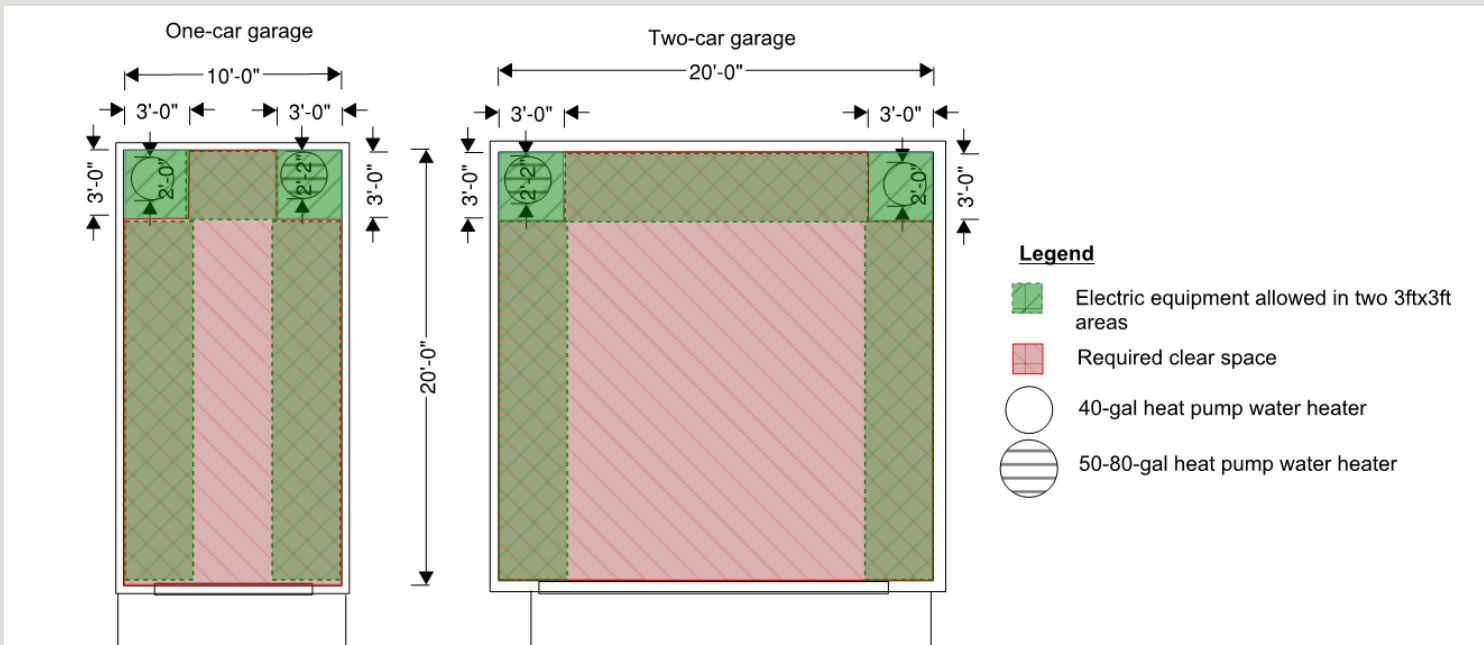
16.18/20 R2 R3 zoning specific exemptions

**Table 1: Summary of approved zoning ordinance amendments**

Modification number	Zoning Ordinance Section	Proposed modification	Effect of modification
1	16.04.296	Create a definition of electric equipment and enclosures	Defines terms for use in other sections
2	16.04.120	Modify the definition of building coverage to exempt electric equipment enclosures	Simplifies permit review
3	16.04.313	Modify the definition of floor area to exclude electric equipment enclosures	Simplifies permit review
4	16.04.320	Modify the garage definition to indicate that there are allowable encroachments into the clear space	Creates a basis for encroachments in garages
5	16.04.325	Modify the definition of gross floor area to exclude electric equipment enclosures	Simplifies permit review
6	16.18.030 and 16.20.030	Modify the development regulations for the R2 low-density apartment and R3 apartment zoning districts to exclude electric equipment enclosures from landscaping requirements.	Simplifies permit review
7	16.60.010	<p>Convert the allowed encroachments section of the encroachments and balconies chapter to a table for clarity, allow equipment less than four feet in height without an enclosure between the dwelling and the street if screened, and allow a single electrification enclosure per dwelling unit in the side or rear setback, provided:</p> <ul style="list-style-type: none"> <li>a. The enclosure does not exceed sixteen square feet in area;</li> <li>b. The enclosure does not exceed nine feet, six inches in height;</li> <li>c. The encroachment does not exceed four feet into the side or rear setback; and</li> <li>d. The enclosure is no closer than three feet to the side or rear property line</li> </ul>	Simplifies permit review and outlines specific encroachments for electric equipment and electric equipment enclosures
8	16.72.010	<p>Modify the off-street parking section to:</p> <ul style="list-style-type: none"> <li>a. Allow EV chargers and gas and electric tankless water heaters mounted 48 inches above the slab of the garage as permitted encroachments</li> <li>b. Specify that electrification equipment could be located within the clear space in up to two three-feet-by-three-feet areas in garages for existing dwelling units.</li> <li>c. Require resident to submit form acknowledging voluntary reduction of parking area</li> </ul>	Outlines specific allowances for electric equipment encroachments in garages
9	16.80.030	Add a subsection to the nonconforming structures chapter clarifying dwellings where electric equipment encroaches into the required clear space for garages and/or carports would not be considered nonconforming with respect to minimum required parking	Simplifies permit review

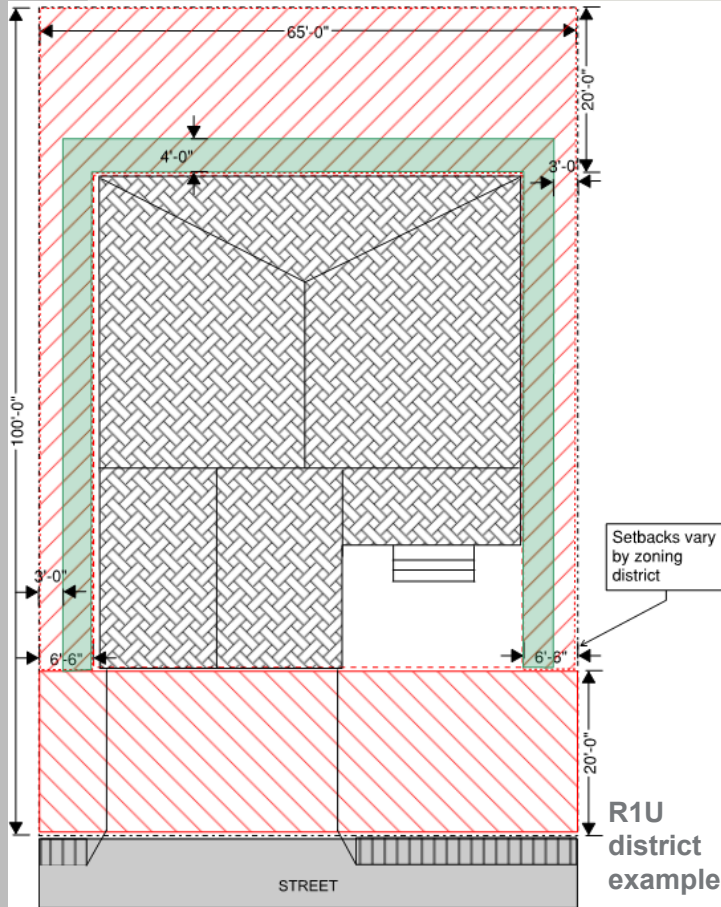
# APPROVED GARAGE CHANGES

- Allow tankless water heaters and EV chargers 48 inches above slab
- Allow electric equipment in two 3ft.-by-3ft. areas in garages



# APPROVED SETBACK CHANGES

- Allow electrification equipment enclosures in the required side or rear setbacks
  - Max footprint: 16 square feet
  - Max height: nine feet six inches
  - Max encroachment: four feet
  - Must preserve three feet for required emergency access (egress)
  - Must comply with Noise Ordinance limits
    - (50 dBA at the residential property line during the night, 60 dBA during the day)
  
- Allow equipment without enclosure between dwelling and street
  - Max height four feet
  - Fence or landscape screening to height of equipment

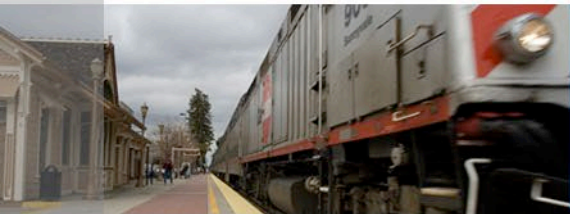


Setbacks vary by zoning district

R1U district example

STREET

- Property boundary
- Side and rear setbacks
- Electric equipment enclosure allowed (max 16sf x 9-ft.-6-on)3-ft.x3-ft.)
- Primary dwelling
- 20-ft. front setback
- Sidewalk



## KEY TAKEAWAYS

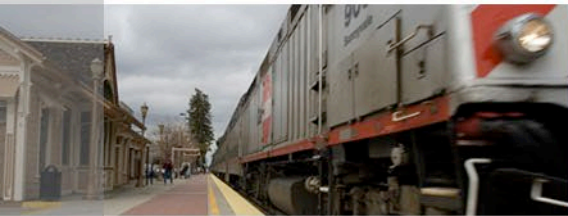


- Teamwork and buy-in are crucial
- Teamwork takes time
- Zoning is technical, partner with planners
- Workshop with implementers
- “Design with the end in mind” (i.e. keep a running ordinance draft, and think about implementation)
- Use the process
- Work does not happen in a vacuum (e.g. parallel track with Housing Element)
- Consult your city attorney along the way
- Internalize complexity to simplify for external folks





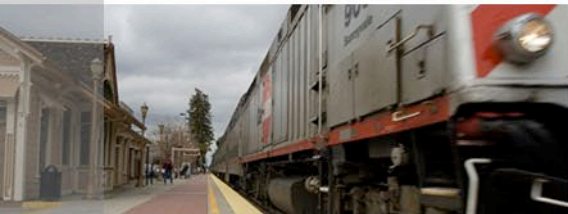
**THANK YOU**



# PROPOSED CHANGES SUMMARY



Earlier regulation	Proposed change	Effect of change
Only cars allowed in the required 10-ft.-by-20-ft. garage clear space	Allow tankless gas and electric WH and EV chargers 48 inches above slab; and electric equipment in garage clear space in up to two 3-ft.-by-3-ft. spaces	Preserves area for parking in garage or driveway, and allows electric equipment (primarily HPWH) in garage
AC/HP equipment allowed within the setbacks	Allow setback encroachments for electric equipment enclosures (primarily for HPWH); and add allowance for AC/HP between dwelling and street if screened	Allows up to 16-sqft. protective enclosures for electric equipment in side or rear setbacks provided 3 ft. egress setback is met



## PROPOSED CHANGES CONT.



- Create a definition of electric equipment and enclosures
- Modify development regulation definitions of floor area, building coverage, landscaping to exclude the enclosures
- Modify off-street parking to allow gas and electric tankless WH and electric equipment in garages and require reduced parking acknowledgement form
- Modify encroachments to allow electric equipment enclosures in side and rear setbacks
- Update Nonconforming Structures section to clarify these encroachments do not create parking nonconformities