



Planning and Development Department
Land Use Planning Division

DATE: June 1, 2022
TO: Members of the Planning Commission
FROM: Grace Wu, Acting Principal Planner
Justin Horner, Associate Planner
SUBJECT: Objective Standards for Middle Housing

INTRODUCTION

Pursuant to City Council referrals, as well as recent changes in housing-related state laws and the requirement to update the City’s Housing Element, the Planning Commission is asked to consider objective residential development standards to encourage the development of “middle housing” in the R-1, R-1A, R-2, R-2A and MU-R zoning districts (“low-density residential districts”). The intent of the proposed objective standards is to encourage duplexes, triplexes/fourplexes, courtyard apartments and other small-scale multi-family housing types that have historically appeared in Berkeley neighborhoods primarily comprised of single-family homes.

Planning Commission is asked to receive a report and provide feedback on the proposed objective development standards. Staff will also be available to discuss the proposed standards at the Housing Element public workshop on June 29, 2022 and will return to present a draft ordinance to the Planning Commission in Spring 2023, once the final Housing Element Update and final Environmental Impact Report (EIR) are adopted.

BACKGROUND

City Council Referrals

The proposed objective standards are presented to respond to the following City Council referrals:

Table 1. City Council Referrals

| | |
|-----------------------------------|--|
| Housing Accountability Act (2017) | On July 11, 2017, the City Council adopted a referral regarding the State Housing Accountability Act (Government Code Section 65589.5) and requested research into a set of objective zoning standards for new development projects in the following four areas: Density and/or building intensity; |
|-----------------------------------|--|

| | |
|---|--|
| | Public health and safety standards; Design review standards; and Views, shadows, and other impacts that underlie detriment findings. |
| <i>Missing Middle Housing (2019)</i> | On April 23, 2019 the City Council directed the City Manager to examine methods to provide for a broader range of housing types in areas of Berkeley with access to parks, schools, employment, transit, and other services. The Council directed the City Manager to explore opportunities to allow “missing middle” housing types in the R-1, R-1A, R-2, and R-2A zoning districts. |
| <i>Eliminating Exclusionary Zoning (2021)</i> | On February 23, 2021 the City Council adopted a resolution declaring the intent of the Council to allow multi-family housing in residential neighborhoods throughout Berkeley, and to allow for small-scale multi-family development in the R-1, R-1A, R-2, and R-2A zoning districts. As part of this effort, the resolution calls for the city to also: Protect public safety in all neighborhoods; Allow for new housing that reflects the existing mix of multi-family housing types within neighborhoods; Provide strong anti-displacement and tenant protections; Accommodate families in new and rehabilitated multi-family housing developments; Ensure that new development does not demolish any rent-controlled or below market-rate housing; Explore incentives for projects to contribute to the need for affordable housing; and Carry out a robust community process when developing zoning changes. |

Objective Standards Framework

To respond to the wide array of policy priorities included in the City Council’s referrals, the project team developed an Objective Standards Framework to organize policy proposals. The Framework creates three areas of focus:

- **Housing Element Update:** This focus area includes policies that ensure compliance with State Housing Element law and implement zoning policies proposed in the 6th Cycle 2023-2031 Housing Element to meet the City’s approximately 9,000-unit Regional Housing Needs Allocation (RHNA) and a 15-30% buffer. At its meeting on May 4, 2022, Planning Commission received a report on the status of the Housing Element Update.

The proposed middle housing standards is a Housing Program featured in the draft Housing Element Update, and the City has received public input on objective standards at City Council worksessions, Housing Element workshops, and outreach events. New objective standards are prepared to allow for new and streamlined residential development consistent with the updated Housing Element.

- **Middle Housing:** This includes the proposed objective development standards included in this report to simplify and streamline the approval of multi-unit housing projects in low density residential districts to satisfy the City Council’s referrals.
- **Higher Density Residential and Commercial Districts:** This includes confirming, modifying or creating objective standards for mixed-use or multi-unit projects in higher density residential and commercial districts. These policies

will provide clarity and predictability for State-streamlined projects (e.g. SB 35, AB 1397) and reduce reliance on the use permit process and non-detriment findings.

Zoning Ordinance Revision Project (ZORP) Subcommittees To advise staff on the development of objective standards, the Planning Commission and the Zoning Adjustments Board appointed members to two Zoning Ordinance Revision Project (ZORP) Subcommittees. The Subcommittees have met concurrently on two occasions.

On December 15, 2021, the Subcommittees met to receive a background presentation on the development of objective standards and to review and approve the Objective Standards Framework and overall project approach. On February 16, 2022, the Subcommittees met to provide feedback on an initial version of the proposed Middle Housing development standards for middle housing presented to Planning Commission in this report.

In their two meetings, the ZORP Subcommittees identified the following as important considerations in the process of determining appropriate objective development standards:

- Encouraging smaller units that are “affordable by design;”
- Permitting more density while discouraging financial speculation; and
- Balancing the environmental trade-offs between protecting rooftop solar access and higher densities.

City Council Housing Element Worksession

As part of the Housing Element Update, staff also received feedback pertinent to middle housing standards at the March 15, 2022 City Council worksession¹. Councilmembers identified the following key considerations:

- Permit higher density equitably throughout the City, including in high resource, high income neighborhoods, and consideration of the Hillside Overlay.
- Create an incentive for adaptive reuse and smaller, more affordable units, including allowing for more than four units in lower density residential districts.
- Consider adopting the same standards for the R-1, R-1A, R-2 and R-2A districts (i.e. merging zoning districts) and treating Residential zones similarly.
- Embrace climate adaption and resilience through local power generation, but solar access should not be a barrier to creating more housing.

Related Concurrent Projects

- **Proposed citywide affordable housing requirements.** In March 2022, Planning Commission provided a recommendation for approval to Council for a

¹ March 15, 2022. *Housing Element Update and Residential Objective Standards*. City Council Worksession. <https://berkeleyca.gov/sites/default/files/city-council-meetings/2022-03-15%20Agenda%20Packet%20-%20Council%20WS.pdf>

comprehensive update to the City's affordable housing requirements², which would apply to all new residential development including Middle Housing projects, establish a per-square-foot in-lieu fee instead of a per-unit basis, and consider a sliding scale reduced fee for projects with less than 12,000 gross residential square feet.

- **Demolition Ordinance Update.** The Demolition Ordinance prohibits demolition of dwelling units where a building has been removed from the rental market under the Ellis Act during the preceding five years or "there have been verified cases of harassment or threatened or actual illegal eviction during the immediately preceding three years." Applicants are generally required to provide relocation benefits, including moving expenses and differential rent payments. In addition, displaced tenants are provided a right of first refusal to rent new units. The City is currently reviewing the demolition ordinance to ensure compliance with State density bonus, SB 330, and other laws, and will amend the fee and replacement requirements accordingly.
- **Rent Ordinance Amendments.** In March 2022³, the Rent Stabilization Board proposed three amendments to the Rent Ordinance for Council to place on the November ballot, which includes an amendment to allow for rent control protections to attach to new units that were built as a result of demolition under Senate Bill 330.

PROPOSED MIDDLE HOUSING DEVELOPMENT STANDARDS

The intent of these standards is to implement the City Council's direction to eliminate exclusionary zoning and allow for missing middle development in Berkeley's low-density residential zones. The draft proposed standards are designed to increase total achievable floor area on a lot as the number of units increases. The scaling of the FAR is not in direct proportion to the unit count, thereby encouraging a mix of unit sizes and densities. In the R districts, this is accomplished by increasing allowed lot coverage and FAR as the number of units increases. In the MU-R district, this is accomplished by increasing FAR as the number of units increases.

In response to City Council's feedback, the proposed R-1A and R-2 standards are identical and can be merged to simplify zoning administration. Both R-1A and R-2 are currently in the same General Plan land use designation: Low Medium Density Residential.

Table 2 below provides a summary glance at the proposed standards, the general direction of the recommended change and the policy rationale for each

² March 3, 2022. *Public Hearing on Amendments to Citywide Affordable Housing Requirements*. Planning Commission. https://berkeleyca.gov/sites/default/files/legislative-body-meeting-agendas/2022-03-02%20PC%20Agenda_linked.pdf

³ March 17, 2022. *Discussion and possible action to recommend various amendments to the Rent Stabilization and Eviction for Good Cause Ordinance to be placed on the November 2022 general election ballot*. Rent Stabilization Board. https://rentboard.berkeleyca.gov/sites/default/files/legislative-body-meeting-agendas/2022_Mar%2017%20Full%20Agenda%20PACKET%20For%20Web.pdf

recommendation. Each standard is further discussed below and the specific development standard changes can be found in Attachment 1.

Table 2. Summary of Proposed Standards

| Standard | Recommendation | Policy Goal |
|----------------------------------|---|--|
| Permits and Levels of Discretion | Projects with 2 or more units can be approved with a ZC | Encourage housing development; Streamline process; Increase predictability of approval process |
| Minimum and Maximum Densities | Set minimum and maximum densities expressed in units per acre | Encourage appropriate densities; Provide predictability for neighbors; Maintain middle housing scale in low-density residential districts |
| Maximum Floor Area Ratio (FAR) | Set a maximum FAR that scales up as units increase | Maintain middle housing scale in low-density residential districts; Encourage unit sizes that are “affordable by design”; Comply with SB 478, signed into law by the Governor on September 28, 2021, which prohibits a local agency from imposing a FAR less than 1.0 on a housing project with 3 to 7 units, or less than 1.25 on a housing project with 8 to 10 units. |
| Minimum Open Space | Set requirement on a per 1,000 sf basis, rather than per unit | Encourage housing development |
| Maximum Height | Set a maximum height based on meeting objective standards for setbacks | Encourage housing development; Streamline process; Increase predictability of approval process; |
| Lot Coverage and Setbacks | Increase lot coverage as units increase, and reduce rear setbacks with reduced height | Encourage housing development |
| Building Separation | Remove building separation requirement | |

PERMITS AND LEVELS OF DISCRETION

Current Policy: Table 3 includes the current permit requirements in low-density residential districts for residential projects that include more than one dwelling unit. The proposed standards *do not change* any permit requirements for Single-Family, Group Living Accommodation or Mixed-Use Residential uses in these zones.

Table 3. Current Permit Requirements

| | R-1 | R-1H | R-1A | R-2 | R-2H | R-2A | R-2AH | MU-R |
|--------------|-----|------|--------|--------|------|--------|--------|---------------|
| Two-family | NP | NP | UP(PH) | UP(PH) | NP | UP(PH) | UP(PH) | AUP |
| Multi-Family | NP | NP | NP | UP(PH) | NP | UP(PH) | UP(PH) | AUP UP(PH) |

Proposed Standard: The proposed standards would combine Two-Family and Multi-Family Residential uses into a single Multi-Unit Residential use type. The City would

provide ministerial approval with a Zoning Certificate for Multi-Unit Residential projects that comply with all objective standards; no discretionary permit or public hearing would be required. A Zoning Certificate is a ministerial approval reviewed by the Zoning Officer to verify compliance with the Zoning Ordinance. Table 4 summarizes the recommendation:

Table 4. Proposed Permit Requirements

| | R-1 | R-1H | R-1A | R-2 | R-2H | R-2A | R-2AH | MU-R |
|------------------------|-----|------|------|-----|------|------|-------|------|
| Multi-Unit Residential | ZC | ZC | ZC | ZC | ZC | ZC | ZC | ZC |

MINIMUM AND MAXIMUM DENSITIES

Current Policy: The Berkeley Municipal Code does not include any minimum or maximum density standards for low-density residential zones that are expressed in “units per acre”. In the R-1, R-1A, R-2, and R-2A districts, density is limited by requirements for a “minimum lot size per unit” standard and by specific residential land use types (e.g. “Single-Family”, “Two-Family”).

Proposed Standard: Table 5 summarizes the proposed density standards expressed in units per acre, and includes the maximum number of units that may result from each standard on a typical 5,000 square foot lot in each zone. There is no minimum density requirement for lots in the Hills (H) Overlay district. Minimum densities would apply for new development on vacant lot or redevelopment and infill of existing nonvacant lots.

Table 5. Proposed Density Standards

| | R-1 | R-1H | R-1A | R-2 | R-2H | R-2A | R-2AH | MU-R |
|-----------------------------------|-----|---------|------|-----|---------|------|---------|------|
| Minimum Density (DU/acre) | 10 | No min. | 10 | 10 | No min. | 20 | No min. | 20 |
| Maximum Density (DU/acre) | 25 | 20 | 35 | 35 | 20 | 55 | 55 | 55 |
| Resulting units on a 5,000 sf lot | | | | | | | | |
| Minimum Units | 1 | No min. | 1 | 1 | No min. | 2 | No min. | 2 |
| Maximum Units | 3 | 2 | 4 | 4 | 2 | 6 | 6 | 6 |

The proposed density standards do not include any eligible Accessory Dwelling Units (ADUs) permitted under recently-adopted ADU provisions. In addition, projects with five or more units that include affordable units on-site would be eligible to utilize the State Density Bonus.

MAXIMUM FLOOR AREA RATIO (FAR)

Current Policy: While an effective maximum FAR can be calculated based on existing standards for lot coverage and maximum number of stories, the Berkeley Municipal Code does not include a specific FAR standard in the R-1, R-1H, R-1A, R-2, R-2H, R-

2A, R-2H and R-2AH districts. The BMC does include a maximum 1.5 FAR in the MU-R district.

Proposed Policy: Table 6 summarizes the proposed maximum FAR standards. No FAR limit is applied if a project is subdividing existing habitable space to create additional dwelling units.

The City Council had directed staff to consider scaling the FAR to increase as the number of units increase on a site, and can increase further with an AUP. The recommended FAR standards also reflect guidance from the ZORP Subcommittees to encourage the development of smaller or medium -sized, cost-efficient units that are “affordable by design.” In addition, SB 478 was signed into law by the Governor on September 28, 2021, which prohibits a local agency from imposing a FAR less than 1.0 on a housing project with 3 to 7 units, or less than 1.25 on a housing project with 8 to 10 units.

The ZORP Subcommittees also called for development standards that would incentivize, but not require, the preservation of existing buildings. One consideration is to include a provision of a 10% floor area bonus for a project that preserves an existing street-facing building; however, this assumes that there is merit to preserving all existing street-facing buildings and that “preservation” can be objectively defined.

Table 6. Proposed Maximum FAR Standards

| | R-1 | R-1H | R-1A | R-2 | R-2H | R-2A | R-2AH | MU-R |
|---------------------------|------|------|------|------|------|------|-------|------|
| 1 unit and nonresidential | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.5 |
| 2 units | 0.5 | 0.5 | 0.6 | 0.6 | 0.6 | 1.0 | 1.0 | 1.5 |
| 3-7 units | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.25 | 1.25 | 1.5 |
| 8 + units | 1.25 | 1.25 | 1.25 | 1.25 | 1.25 | 1.5 | 1.5 | 1.75 |

Minimum Required Open Space

Current Policy: Table 7 summarizes current minimum open space requirements in low-density residential zones, on a per unit basis.

Table 7. Current Required Open Space

| | R-1 | R-1H | R-1A | R-2 | R-2H | R-2A | R-2AH | MU-R |
|------------------------|-----|------|------|-----|------|------|-------|------|
| Per dwelling unit (sf) | 400 | 400 | 400 | 400 | 400 | 300 | 300 | 150 |

Proposed Policy: The proposed development standard would require 150 sf of open space for every 1,000 sf of floor area on a project site, in each of the low density Residential districts. Note that required open space is no longer based on the number of units, but on a project’s total floor area. The proposed open space standard is designed to permit a larger percentage of total lot area to be dedicated to residential development while also preserving the requirement to provide residents with usable open space.

MAXIMUM AVERAGE HEIGHT

Current Policy: The Berkeley Municipal Code generally limits average building heights for main buildings in most low-density residential districts to 28 feet and three stories, with a possible increase to 35 feet with an AUP. In the Hillside Overlay, the Zoning Officer may approve an AUP to increase the allowed average height (28 feet) and allowed maximum height (35 feet). In the MU-R, the maximum height is 35 feet and 3 stories without the need for an additional AUP. Current policy also limits the height of residential additions to 14 feet, with a possible increase to 35 feet with an AUP.

Proposed Policy: The proposed development standards for maximum building height include the following:

- The maximum average building height in low-density residential districts would be 35 feet, but would be reduced to 22 feet within 15 feet of a rear property line;
- The limit on the maximum number of stories would be removed; maximum height would only be measured in feet;
- Maximum height standards for main buildings and residential additions would be the same.

The proposed development standards largely preserve existing height limits, while providing pathways for slightly taller projects (and more dwelling units) through a nondiscretionary process based on objective standards. The proposed standards also include provisions—lower maximum heights near the rear property line and additional objective development standards for taller projects—that consider potential impacts on neighboring properties.

MAXIMUM LOT COVERAGE

Current Policy: Table 7 summarizes existing maximum lot coverage requirements. Current requirements distinguish between interior and corner lots, and reduce maximum lot coverage for taller projects.

Table 7. Current Maximum Lot Coverage Standards

| | R-1 | R-1H | R-1A | R-2 | R-2H | R-2A | R-2AH | MU-R |
|------------------------------------|-----|------|------|-----|------|------|-------|------|
| Interior & Through-Lots | | | | | | | | |
| 1 story | 40% | 40% | 40% | 45% | 45% | 45% | 45% | 100% |
| 2 stories | 40% | 40% | 40% | 40% | 40% | 40% | 40% | 100% |
| 3 stories | 40% | 40% | 40% | 35% | 35% | 35% | 35% | 100% |
| Corner Lots | | | | | | | | |
| 1 story | 40% | 40% | 50% | 50% | 50% | 50% | 50% | 100% |
| 2 stories | 40% | 40% | 45% | 45% | 45% | 45% | 45% | 100% |
| 3 stories | 40% | 40% | 45% | 40% | 40% | 40% | 40% | 100% |

Proposed Policy: The proposed development standards, summarized in Table 8:

- Increase maximum lot coverage in most low-density residential districts,
- Use the total number of units in a project as the controlling factor for the standard, instead of the number of stories; and
- Eliminates the distinction between interior/through lots and corner lots. The proposed standards are summarized in Table 8.

Table 8. Proposed Maximum Lot Coverage Standards

| | R-1 | R-1H | R-1A | R-2 | R-2H | R-2A | R-2AH | MU-R |
|-----------------------------|-----|------|------|-----|------|------|-------|------|
| 1-2 units & non-residential | 40% | 40% | 50% | 50% | 50% | 50% | 50% | 100% |
| 3-7 units | 50% | 50% | 55% | 55% | 55% | 55% | 55% | 100% |
| 8+ units | 55% | 55% | 55% | 55% | 55% | 60% | 60% | 100% |

MINIMUM SETBACKS

Current Policy: The Berkeley Municipal Code currently regulates four types of setbacks:

- **Front and Rear Setbacks:** Front and rear setbacks are 20 feet in the R-1, R-1H, R-1A, R-2 and R-2H zoning districts, and 15 feet in the R-2A and the R-2AH districts.

In the MU-R zoning district, lots adjacent to a non-residential district have no rear setback, unless they abut a street, in which case a 5 ft rear setback is required. A lot in the MU-R adjacent to a residential district must provide a rear setback of either 10 feet or 10% of the lot’s width, whichever is less.

- **Interior Side Setbacks:** Interior side setbacks are based on building height. The interior side setback is 4 feet at the first story for all low-density residential districts, except the MU-R. At the second story, the interior setback increases to 6 feet in the R-2, R-2H, R-2A, and R-2H districts. Interior side setbacks can be reduced to 3 feet (or 5 feet) with a ZC.

In the MU-R district, lots adjacent to a residential district must provide an interior side setback of either 10 feet or 10% of the lot’s width, whichever is less. There are no other interior side setback requirements in the MU-R.

- **Street Side Setbacks:** Street side setbacks are 4 feet in the R-1, R-1H, and R-1A districts, 10 feet in the R-2 and R-2H districts, and vary by height in the R-2A and R-2AH districts (6 feet at first story, 8 feet at second story and 10 feet at third story).

In the MU-R district, lots adjacent to a non-residential district must provide a 5 foot street side setback. Lots adjacent to a residential district must provide a street side setback of either 10 feet or 10% of the lot’s width, whichever is less. There are no other street side setback requirements in the MU-R.

A Zoning Officer may approve an AUP to reduce the minimum setbacks in the H Overlay.

Proposed Policy: The proposed development standards include the following:

- **Front Setbacks:** Front setback standards would remain the same. However, a project could provide a smaller setback that is the average of the front setback(s) of adjacent structure(s), if that is less than the required setback.
- **Rear Setbacks:** The rear setback in all low-density residential districts would be 4 feet, except in the MU-R, which would maintain its existing regulations. This is consistent with the required setbacks required for ADUs. As noted above, a building’s maximum height is limited to 22 feet within 15 feet of the rear property line.
- **Interior Side Setbacks:** The interior side setback in all low-density residential districts would be 4 feet, except in the MU-R, which would maintain its existing regulations.
- **Street Side Setbacks:** Street side setbacks in the R-1, R-1H and R-1A would be 4 feet, unless the corner lot abuts a key lot in the rear, in which case the street side setback would be 10 feet to be closer in line with adjacent front yards. There would be no changes to street side setbacks in the MU-R.

BUILDING SEPARATION

Current Policy: Current building separation requirements are summarized in Table 9:

Table 9. Current Building Separation Standards

| | R-1 | R-1H | R-1A | R-2 | R-2H | R-2A | R-2AH | MU-R |
|--------------------|--------|--------|------|-----|------|------|-------|--------|
| 1 story (ft) | No min | No min | 8 | 8 | 8 | 8 | 8 | No min |
| 2 stories (ft) | No min | No min | 12 | 12 | 12 | 12 | 12 | No min |
| 3 stories (ft) | No min | No min | 16 | 16 | 16 | 16 | 16 | No min |
| Reduce with an AUP | -- | -- | AUP | AUP | AUP | AUP | AUP | -- |

Proposed Policy: The proposed development standards would eliminate all building separation requirements. Building and fire code requirements fire rating and separation would still apply.

SOLAR ACCESS

ZORP Subcommittee members and members of the public have provided comments expressing concern about how the proposed development standards might impact solar access for neighboring properties, specifically solar access to existing or planned solar energy facilities. In response to this concern, staff has produced solar models to evaluate shadow impacts in a “maximum impact scenario”. Attachment 3 includes solar modelling diagrams that illustrate how the proposed development standards consider solar access impacts. As a result of the solar model analysis, the proposed standards allow for a 35-foot maximum average height except in the rear 15 feet of a lot, where the maximum height would be 22 feet.

The Planning Commission is asked to note, when considering policies to address solar access, that State law prohibits a) the adoption of any new subjective development standards for housing development projects; and b) the adoption of new objective standards that would reduce the intensity or density of residential development. Additionally, while State law allows for parties to voluntarily enter into solar easement agreements (where a neighbor may grant an easement to a solar system owner), the City cannot require a solar easement without just compensation.

DISCUSSION

Do the proposed development standards achieve the goals of the City Council referrals, namely encouraging the development of middle housing in low-density residential districts?

Are there provisions of the proposed zoning standards that should be changed or revised?

Are there additional considerations that remain unaddressed by the proposed development standards?

ATTACHMENTS

1. [Detailed Development Standards Tables](#)
2. [Solar Modeling Diagrams](#)

Table 1. Existing Development Standards

| "N" = not applicable; P = Permitted UPPH = Use Permit Public Hearing NP = Not Permitted *Use-Specific Regs Apply | | R-1 | R-1H | R-1A | R-2 | R-2H | R-2A | R-2AH | MU-R |
|--|--------------------------------|---------------|----------|----------------|-----------------------|----------|------------|----------|-----------------------|
| | | Single-Family | | Ltd Two-Family | Restricted Two-Family | | Restricted | | Mixed-Use Residential |
| Single-Family | | UPPH | UPPH | UPPH | UPPH | UPPH | UPPH | UPPH | AUP |
| Two-Family | | NP | NP | UPPH | UPPH | NP | UPPH | UPPH | AUP |
| Multi-Family | | NP | NP | NP | UPPH | NP | UPPH | UPPH | AUP/UPPH [10] |
| Group Living Accommodation | | NP | NP | NP | NP | NP | NP | NP | UPPH |
| Mixed-Use Residential | | NP | NP | NP | UPPH* | NP | UPPH* | UPPH* | UPPH |
| Min Lot Area (SF) | New Lots | 5000 | 5000 | 5000 | 5000 | 5000 | 5000 | 5000 | No min |
| | Min Lot Width (ft) | - | - | - | - | - | - | - | 40 |
| | Per DU | No min | No min | No min | 2500 | 2500 | 1650 | 1650 | 1,250 |
| | 2 Units | - | - | 4500 | No min | No min | No min | No min | - |
| Min OS (SF) | Per DU | 400 | 400 | 400 | 400 | 400 | 300 | 300 | 150 |
| | Live/Work | - | - | - | - | - | - | - | 40 |
| Max Avg Height, New Bldg or Non-Resi Addition (ft) Hillside max height 35' | Base | 28 | 28 | 28 | 28 | 28 | 28 | 28 | - |
| | Increase w/AUP | 35 | 35 | 35 | 35 | 35 | 35 | 35 | 35 |
| | Max Avg Height, Rear Main (ft) | - | - | 22 | - | - | - | - | - |
| | Max Height, Resi/MU | - | - | - | - | - | - | - | 35 |
| | Max Height, Live-Work | - | - | - | - | - | - | - | 28 |
| Max Avg Height, Resi addition (ft) | Live/Work w/UP | - | - | - | - | - | - | - | 35 |
| | Base | 14 | 14 | 14 | 14 | 14 | 14 | 14 | - |
| Max Stories, New Bldg or Non-Resi Addition | w/ AUP | 35 | 35 | 35 | 35 | 35 | 35 | 35 | - |
| | Base | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Max Stories, Rear Main | | - | - | 2 | - | - | - | - | - |
| Max Lot Coverage Interior/Thru (%) | 1 story | 40 | 40 | 40 | 45 | 45 | 45 | 45 | 100 |
| | 2 stories | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 100 |
| | 3 stories | 40 | 40 | 40 | 35 | 35 | 35 | 35 | 100 |
| | Increase w/ AUP | - | - | - | - | - | - | - | 100 |
| Max Lot Coverage Corner (%) | 1 story | 40 | 40 | 45 | 50 | 50 | 50 | 50 | 100 |
| | 2 stories | 40 | - | 45 | 45 | - | 45 | 45 | 100 |
| | 3 stories | 40 | - | 45 | 40 | - | 40 | 40 | 100 |
| | Increase w/ UP | - | - | - | - | - | - | - | - |
| Min Setback, Front (ft) | 1st-2nd Story | 20 | 20 | 20 | 20 | 20 | 15 | 15 | - |
| | 3rd Story | 20 | 20 | 20 | 20 | 20 | 15 | 15 | - |
| | Adjacent Non-R Dist | - | - | - | - | - | - | - | 5 |
| | Adjacent R Dist | - | - | - | - | - | - | - | 10 |
| | Reduce w/ AUP | - | No min | - | - | No min | - | No min | No min |
| Min Setback, Rear (ft) | 1st-2nd Story | 20 | 20 | 20 | 20 | 20 | 15 | 15 | - |
| | 3rd Story | 20 | 20 | 20 | 20 | 20 | 15 | 15 | - |
| | Adjacent Non-R Dist | - | - | - | - | - | - | - | 0/5 [11] |
| | Adjacent R Dist | - | - | - | - | - | - | - | 10/10% [12] |
| | Reduce w/ ZC | 20%[3] | 20%[3] | 20%[3] | - | - | - | - | - |
| | Reduce w/AUP | - | - | 12[6] | - | - | - | - | - |
| Min Setback, Interior Side (ft) | 1st-2nd Story | 4 | 4 | 4 | 4 | 4 | 4 | 4 | - |
| | 3rd Story | 4 | 4 | 4 | 6 | 6 | 6 | 6 | - |
| | 1st-2nd Story w/ ZC | 3/10%[4] | 3/10%[4] | 3/10%[4] | 3/10%[4] | 3/10%[4] | 3/10%[4] | 3/10%[4] | - |
| | 3rd Story w/ ZC | 3/10%[4] | 3/10%[4] | 3/10%[4] | 5[4] | 5[4] | 5[4] | 5[4] | - |
| | Adjacent Non-R Dist | - | - | - | - | - | - | - | 0 |
| | Adjacent R Dist | - | - | - | - | - | - | - | 10/10% [12] |
| Min Setback, Street Side (ft) | 1st Story | 4 | 4 | 4 | 10 | 10 | 6 | 6 | - |
| | 2nd Story | 4 | 4 | 4 | 10 | 10 | 8 | 8 | - |
| | 3rd Story | 4 | 4 | 4 | 10 | 10 | 10 | 10 | - |
| | Adjacent Non-R Dist | - | - | - | - | - | - | - | 5 |
| | Adjacent R Dist | - | - | - | - | - | - | - | 10/10% [12] |
| Min Setback, Int/Street Rear Bldg (ft) | | - | - | 6 | - | - | - | - | - |
| Min Bldg Separation (ft) | 1st story | No min | No min | 8[9] | 8 | 8 | 8 | 8 | No min |
| | 2nd story | No min | No min | 12[9] | 12 | 12 | 12 | 12 | No min |
| | 3rd story | No min | No min | 16[9] | 16 | 16 | 16 | 16 | No min |
| | Reduce w/UP | - | - | P(AUP) | P(AUP) | P(AUP) | P(AUP) | P(AUP) | - |

[1] If min 50% of floor area is Residential, UP to increase GLA density
 [2] If min 50% of floor area is Residential
 [3] On a lot less than 100 ft deep, reduction of rear setback by 20% of lot depth with ZC.
 [4] Whichever is greater. Lot width less than 40 ft, NP for rear main buildings in R-1A
 [5] If MU or Residential W of San Pablo Ave
 [6] To construct a dwelling unit and would not cause detrimental impact on emergency access or privacy, light, air for neighboring properties.

[7] Lots <5,000 SF, reductions are not allowed for property lines abutting a property under different ownership.
 [8] Lot <5,000 SF, max 1 dwelling unit and max gross floor area of 1,000 SF.
 [9] R-1A Separation Standard based on building height, not by story.
 [10] 3 to 4 units requires AUP, 5+ units requires UP(PH)
 [11] Min 5 ft rear setback if rear of lot abuts a street
 [12] 10 ft of 10% of lot width, whichever is less

Table 2. Proposed Development Standards

| | R-1 | R-1H | R-1A | R-2 | R-2H | R-2A | R-2AH | MU-R |
|--|------------------------------------|--------|-------------------------|-------------------------|--------|--------------|--------|-----------------------|
| | Limited Multi-Family | | Restricted Multi-Family | Restricted Multi-Family | | Multi-Family | | Mixed-Use Residential |
| Single-Family | UPPH | UPPH | UPPH | UPPH | UPPH | UPPH | UPPH | AUP |
| Multi-Unit Residential | ZC | ZC | ZC | ZC | ZC | ZC | ZC | ZC |
| Group Living Accommodation | NP | NP | NP | NP | NP | NP | NP | UPPH |
| Mixed-Use Residential | NP | NP | NP | UPPH* | NP | UPPH* | UPPH* | UPPH |
| Min Density (DUA) - Round to the nearest whole number ¹ | 10 | No min | 10 | 10 | No min | 20 | No min | 20 |
| Max Density (DUA) – Round to the nearest whole number | 25 | 20 | 35 | 35 | 20 | 55 | 55 | 55 |
| Min Lot Area (SF) | New Lots | 5000 | 5000 | 5000 | 5000 | 5000 | 5000 | No min |
| Max FAR | 1 unit and non-residential uses | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.5 |
| | 2 units | 0.5 | 0.5 | 0.6 | 0.6 | 0.6 | 1.0 | 1.5 |
| | 3-7 units | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.25 | 1.5 |
| | 8+ units | 1.25 | 1.25 | 1.25 | 1.25 | 1.25 | 1.5 | 1.75 |
| Min OS (SF) | Per 1,000 sf floor area | 150 | 150 | 150 | 150 | 150 | 150 | 150 |
| | Live/Work | - | - | - | - | - | - | 40 |
| Max Avg Height, New Bldg or Non-Resi Addition (ft) Hillside max height 35' | | 35 | 35 | 35 | 35 | 35 | 35 | 35 |
| | Within 15' of rear property line | 22 | 22 | 22 | 22 | 22 | 22 | 22 |
| Max Lot Coverage (%) | 1-2 units and non-residential uses | 40 | 40 | 50 | 50 | 50 | 50 | 100 |
| | 3-7 units | 50 | 50 | 55 | 55 | 55 | 55 | 100 |
| | 8+ units | 55 | 55 | 55 | 55 | 55 | 60 | 100 |
| Min Setback, Front (ft) | | 20 [1] | 20 [1] | 20 [1] | 20 [1] | 20 [1] | 15 [1] | 15 [1] |
| | Adjacent Non-R Dist | - | - | - | - | - | - | 5 [1] |
| | Adjacent R Dist | - | - | - | - | - | - | 10 [1] |
| | Reduce w/ AUP | - | No min | - | - | No min | - | No min |
| Min Setback, Rear (ft) | | 4 | 4 | 4 | 4 | 4 | 4 | - |
| | Adjacent Non-R Dist | - | - | - | - | - | - | 0/5 [2] |
| | Adjacent R Dist | - | - | - | - | - | - | 10/10% [3] |
| Min Setback, Interior Side (ft) | Adjacent Non-R Dist | - | - | - | - | - | - | 0 |
| | Adjacent R Dist | - | - | - | - | - | - | 10/10% [3] |
| Min Setback, Street Side (ft) | | 4 [4] | 4 [4] | 4 [4] | 4 [4] | 4 [4] | 4 [4] | - |
| | Adjacent Non-R Dist | - | - | - | - | - | - | 5 |
| | Adjacent R Dist | - | - | - | - | - | - | 10/10% [3] |
| Min Bldg Separation (ft) | | No min | No min | No min | No min | No min | No min | No min |

[1] Or average front setback of adjacent structure(s), whichever is less. On key lots, average of street side and adjacent front yard setback.

[2] Min 5 ft rear setback if rear of lot abuts a street

[3] 10 ft of 10% of lot width, whichever is less

[4] Street side setback requirements for corner lots with a rear lot line abutting a key lot in 23.304.B.1 apply.

¹ Minimum densities would apply for new development on a vacant lot or redevelopment and infill of existing nonvacant lots.

Table 3. Proposed Development Standards (Redlined)

| "N" = not applicable; P = Permitted UPPH = Use Permit Public Hearing NP = Not Permitted *Use-Specific Regs Apply | | R-1 | R-1H | R-1A | R-2 | R-2H | R-2A | R-2AH | MU-R |
|--|--|--------------------------------------|--------------------------------------|--|---|-------------------------|-------------------------|-----------------------|--------------------|
| | | Single-Family <u>Multi-Family</u> | Single-Family <u>Multi-Family</u> | Ltd Two-Family <u>Restricted Multi-Family</u> | Restricted Two-Family <u>Restricted Multi-Family</u> | Restricted Multi-Family | Restricted Multi-Family | Mixed-Use Residential | |
| Single-Family | | UPPH | UPPH | UPPH | UPPH | UPPH | UPPH | UPPH | AUP |
| Two-Family | | NP | NP | UPPH | UPPH | NP | UPPH | UPPH | -AUP |
| Multi-Family Unit Residential | | NP ZC | NP ZC | NP ZC | UPPH ZC | NP ZC | UPPH ZC | UPPH ZC | AUP/UPPH {10}ZC |
| Group Living Accommodation | | NP | NP | NP | NP | NP | NP | NP | UPPH |
| Mixed-Use Residential | | NP | NP | NP | UPPH* | NP | UPPH* | UPPH* | UPPH |
| <u>Min Density (DUA) - Round to the nearest whole number</u> | | No min 10 | No min | No min 10 | No min 10 | No min | No min 20 | No min | No min 20 |
| <u>Max Density (DUA) – Round to the nearest whole number</u> | | 1-du/lot 25 | 1-du/lot 20 | 2-du/lot 35 | 35 | 1-du/lot 20 | 55 | 55 | 55 |
| Min Lot Area (SF) | New Lots | 5000 | 5000 | 5000 | 5000 | 5000 | 5000 | 5000 | No min |
| | <u>Min Lot Width (ft)</u> | - | - | - | - | - | - | - | 40 |
| | <u>Per DU</u> | No min | No min | No min | 2500 | 2500 | 1650 | 1650 | 1,250 |
| | <u>2 Units</u> | - | - | 4500 | No min | No min | No min | No min | - |
| <u>Max FAR</u> | <u>1 unit and non-residential uses</u> | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.5 |
| | <u>2 units</u> | 0.5 | 0.5 | 0.6 | 0.6 | 0.6 | 1.0 | 1.0 | 1.5 |
| | <u>3-7 units</u> | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.25 | 1.25 | 1.5 |
| | <u>8+ units</u> | 1.25 | 1.25 | 1.25 | 1.25 | 1.25 | 1.5 | 1.5 | 1.75 |
| Min OS (SF) | <u>Per DU</u> | 400 | 400 | 400 | 400 | 400 | 300 | 300 | 150 |
| | <u>Per 1,000 sf floor area</u> | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 |
| | Live/Work | - | - | - | - | - | - | - | 40 |
| Max Avg Height, New Bldg or Non-Resi Addition (ft) Hillside max height 35' | Base | 28 | 28 | 28 | 28 | 28 | 28 | 28 | - |
| | Increase w/AUP | 35 | 35 | 35 | 35 | 35 | 35 | 35 | 35 |
| | <u>Max Avg Height, Rear Main (ft) Within 15' of rear property line</u> | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 |
| | <u>Max Height, Resi/MU</u> | - | - | - | - | - | - | - | 35 |
| | <u>Max Height, Live-Work</u> | - | - | - | - | - | - | - | 28 |
| <u>Max Avg Height, Resi-addition (ft)</u> | Base | 14 | 14 | 14 | 14 | 14 | 14 | 14 | - |
| | w/AUP | 35 | 35 | 35 | 35 | 35 | 35 | 35 | - |
| <u>Max Stories, New Bldg or Non-Resi Addition</u> | Base | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| <u>Max Stories, Rear Main</u> | - | - | 2 | - | - | - | - | - | - |
| <u>Max Lot Coverage Interior/Thru (%)</u> | <u>1-story</u> | 40 | 40 | 40 | 45 | 45 | 45 | 45 | 100 |
| | <u>2-stories</u> | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 100 |
| | <u>3-stories</u> | 40 | 40 | 40 | 35 | 35 | 35 | 35 | 100 |
| | Increase w/ AUP | - | - | - | - | - | - | - | 100 |
| Max Lot Coverage Corner (%) | <u>1-story 1-2 units and non-residential uses</u> | 40 | 40 | 45 50 | 50 | 50 | 50 | 50 | 100 |
| | <u>2-stories 3-7 units</u> | 40 50 | 40 50 | 45 55 | 45 55 | 45 55 | 45 55 | 45 55 | 100 |
| | <u>3-stories 8+ units</u> | 40 55 | 40 55 | 45 55 | 40 55 | 40 55 | 40 60 | 40 60 | 100 |
| | Increase w/ AUP | = | - | = | = | = | = | = | = |
| Min Setback, Front (ft) | <u>1st-2nd Story</u> | 20 [13] | 20 [13] | 20 [13] | 20 [13] | 20 [13] | 15 [13] | 15 [13] | - |
| | <u>3rd Story</u> | 20 | 20 | 20 | 20 | 20 | 15 | 15 | - |
| | Adjacent Non-R Dist | - | - | - | - | - | - | - | 5 [13] |
| | Adjacent R Dist | - | - | - | - | - | - | - | 10 [13] |
| | Reduce w/ AUP | - | No min | - | - | No min | - | No min | No min |
| Min Setback, Rear (ft) | <u>1st-2nd Story</u> | 20 4 | 20 4 | 20 4 | 20 4 | 20 4 | 15 4 | 15 4 | - |
| | <u>3rd Story</u> | 20 | 20 | 20 | 20 | 20 | 15 | 15 | - |
| | Adjacent Non-R Dist | - | - | - | - | - | - | - | 0/5 [11] |
| | Adjacent R Dist | - | - | - | - | - | - | - | 10/10% [12] |
| | <u>Reduce w/ ZC</u> | 20%{3} | 20%{3} | 20%{3} | - | - | - | - | - |
| Min Setback, Interior Side (ft) | <u>1st-2nd Story</u> | 4 | 4 | 4 | 4 | 4 | 4 | 4 | - |
| | <u>3rd Story</u> | 4 | 4 | 4 | 6 | 6 | 6 | 6 | - |
| | <u>1st-2nd Story w/ ZC</u> | 3/10%{4} | 3/10%{4} | 3/10%{4} | 3/10%{4} | 3/10%{4} | 3/10%{4} | 3/10%{4} | - |
| | <u>3rd Story w/ ZC</u> | 3/10%{4} | 3/10%{4} | 3/10%{4} | 5{4} | 5{4} | 5{4} | 5{4} | - |
| | Adjacent Non-R Dist | - | - | - | - | - | - | - | 0 |
| Min Setback, Street Side (ft) | Adjacent R Dist | - | - | - | - | - | - | - | 10/10% [12] |
| | <u>1st Story</u> | 4 [14] | 4 [14] | 4 [14] | 10 4 [14] | 10 4 [14] | 6 4 [14] | 6 4 [14] | - |
| | <u>2nd Story</u> | 4 | 4 | 4 | 10 | 10 | 8 | 8 | - |
| | <u>3rd Story</u> | 4 | 4 | 4 | 10 | 10 | 10 | 10 | - |
| Adjacent Non-R Dist | - | - | - | - | - | - | - | 5 | |

| "-" = not applicable; P = Permitted UPPH = Use Permit Public Hearing NP = Not Permitted *Use-Specific Regs Apply | | R-1 | R-1H | R-1A | R-2 | R-2H | R-2A | R-2AH | MU-R |
|--|--|---------------------------------------|--------|--|--|-------------|-------------------------|-------------|--------------------------|
| | | Single-Family Limited Multi-Family | | Ltd Two-Family Restricted Multi-Family | Restricted Two-Family Restricted Multi-Family | | Restricted Multi-Family | | Mixed-Use Residential |
| | Adjacent R Dist | - | - | - | - | - | - | - | 10/10% [12] |
| | Min Setback, Int/Street Rear Bldg (ft) | - | - | 6 | - | - | - | - | - |
| Min Bldg Separation (ft) | 1st-story | No min | No min | 8[9] No min | 8 No min | 8 No min | 8 No min | 8 No min | No min |
| | 2nd-story | No min | No min | 12[9] | 12 | 12 | 12 | 12 | No min |
| | 3rd-story | No min | No min | 16[9] | 16 | 16 | 16 | 16 | No min |
| | Reduce-w/UP | - | - | P(AUP) | P(AUP) | P(AUP) | P(AUP) | P(AUP) | - |

[1] If min 50% of floor area is Residential, UP to increase GLA density

[2] If min 50% of floor area is Residential

[3] On a lot less than 100 ft deep, reduction of rear setback by 20% of lot depth with ZC.

[4] Whichever is greater. Lot width less than 40 ft, NP for rear main buildings in R-1A

[5] If MU or Residential W of San Pablo Ave

[6] To construct a dwelling unit and would not cause detrimental impact on emergency access or privacy, light, air for neighboring properties.

[7] Lots <5,000 SF, reductions are not allowed for property lines abutting a property under different ownership.

[8] Lot <5,000 SF, max 1 dwelling unit and max gross floor area of 1,000 SF.

[9] R-1A Separation Standard based on building height, not by story.

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[11] Min 5 ft rear setback if rear of lot abuts a street

[12] 10 ft of 10% of lot width, whichever is less

[13] Or average front setback of adjacent structure(s), whichever is less. On key lots, average of street side and adjacent front yard setback.

[14] Street side setback requirements for corner lots with a rear lot line abutting a key lot in 23.304.B.1 apply.

City of Berkeley

Middle Housing Prototype Studies: R-1 and R-2A

Project Overview

This project studies proposed changes to objective development standards to allow middle housing on neighboring buildings.

Studying the Most Impactful Scenario

The models set up the most impactful scenario (with the biggest difference in height and the minimum distance between neighboring buildings) to better understand whether additional standards are needed.

Shading Analysis Assumptions

The illustrations show shadows cast between 8am and 4pm during the equinox (Sept. or March 21st) for two parcels with different orientations on a flat site, with clear skies and no existing trees.

Maximum Building Envelope Modeled

- 35 feet average building height with objective standards
- R-1 front setback 20 feet
- R-2A front setback 15 feet
- Side setbacks 4 feet
- Rear setback 4 feet
- Reduced rear height to 22 feet within 15 feet of the rear property line

Shading Calculations

The area of shadow was calculated for both 28 feet and 35 feet building heights using the maximum building envelope allowed. The amount of shadow for the 7-foot difference in height is less than 10% more shade on the neighbor's rooftop averaged over the day.

