1. FLOOR AREA RATIO (FAR)

Existing Regulation(s): The total gross floor area on a single family lot shall not exceed 45% of the first 5,000 square feet of lot area plus 30% of lot area over 5,000 square feet. The total gross floor area for the principal structure on an R-1 lot cannot exceed 6,000 square feet. Included in the FAR calculation are all floors of the main residence, stairs at all levels, covered parking, accessory buildings of more than 120 square feet, and attached or detached exterior spaces more than 50% enclosed **and** covered (e.g., enclosed porches). Floor area is not counted for basements where the first finished floor is no more than 3 feet above grade. Additional floor area is also counted for tall building volumes, as follows:

- A second floor equivalent area is added to the total floor area where the distance from the first floor level to the top of the roof directly above is 17' or greater.
- A third floor equivalent area (third floor equivalency) is added to the total floor area where the distance from the first floor level to the top of the roof directly above is 26' or greater; however, up to 200 SF of third floor equivalent area is exempt.

"Gross floor area" (18.04.030) (65) (A) means the total area of all floors of a building measured to the outside surfaces of exterior walls…"

Purpose: To clarify and encourage architectural elements that provide visual relief. The proposal considers issues cited by the Advisory Group related to perceived building bulk, including limiting "additional bulk" created by tall buildings with low slope roofs and deleting any disincentives for recessed porches.

Proposed Regulation: Same as existing regulations, except as noted below:

- No "third floor" equivalency exemption if any portion of the third floor equivalent area has a roof slope of less than 4:12.
- The floor area of an exterior entry structure/entry tower would be counted toward the FAR, if the height of the structure is 12 feet or more from first finished floor level *(Note: The Advisory Group proposed any volume above 12' would be counted twice).*
- First floor "recessed" porches are not included in the FAR.
- The authority to deem basement, cellar, or attic areas as useable will be transferred from the Chief Building Official to the Director of Planning and Community Environment.
- Gross floor area will be calculated to the stud wall, standard industry practice. This change does not affect setbacks, which are measured to the exterior wall material.

Staff Addendum: The Director of Planning and Community Environment has the final authority to determine Zoning Ordinance interpretations; the authority to

deem areas usable is a change to bring the section into conformance with other sections of the code.

Graphics: Follow

2. LOT COVERAGE (SINGLE STORY WITH FULL FAR)

Existing Regulation(s): The maximum lot coverage for one or two story structures on standard lots, substandard lots, and flag lots, including accessory buildings, is presently 35%. Up to an additional 5% lot coverage is allowed for covered patios, canopies, and roof overhangs beyond 4 feet. *(Note: lot coverage for a single story overlay district lots is 40%, and an additional 5% lot coverage for covered patios, canopies, and roof overhangs beyond 4 feet; i.e., roof overhangs (rafters) less than 4' are not counted as part of the building footprint)*

Lot Coverage Definition: Lot coverage is the percentage of the property covered by structures including the primary dwelling "footprint" and accessory buildings such as garages, carports, tool sheds, covered pool equipment units, etc. Projecting balconies, stairways, porches, patio covers, decks, pools, and spas more than 30 inches above grade are also considered structures, as are roof overhangs exceeding 4 feet.

Purpose: Revise the lot coverage standard for single-story residences to allow lot coverage equal to the permitted Floor Area Ratio (FAR).

Full "build-out" (i.e., maximum FAR) cannot be built within a one-story residence due to the existing 35% lot coverage regulation, thus discouraging single-story residences. The proposed change would eliminate this disincentive.

Proposed Regulation: Lot coverage for single-story residences only will be equal to the maximum Floor Area Ration (FAR). An analysis of the potential maximum lot coverage for various sized lots follows. For both single story and two story residences, there is an additional 5 percent coverage for the horizontal area of covered patios, canopies and roof overhangs beyond 4 feet.

The lot coverage definition is not modified by this proposal.

Analysis: Follows

3. DAYLIGHT PLANE

Existing Regulations: No structures except the following:

a) Television and radio antennas; chimneys and flues:

b) Dormers, roof decks, gables or similar architectural features; provided that the horizontal length of all such features shall not exceed a combined total of fifteen feet on each side, nor shall the height of such features exceed twenty-four feet;

c) Cornices, eaves, and similar architectural features, excluding flat or continuous walls or enclosures of usable interior space, may extend into a required daylight plane a distance not exceeding two feet. Chimneys may extend into the required daylight plane a distance not exceeding two feet;

shall extend beyond a daylight plane having a height of ten feet at each side lot line and an angle of forty-five degrees, nor beyond a daylight plane having a height of sixteen feet at the front or rear setback line and an angle of sixty degrees.

Daylight Plane Defined: A daylight plane is a tilted plane(s) over the site. Except for specific "allowed projections into the daylight plane", no portion of the house should project in a daylight plane.

Purpose: Eliminate the front daylight and street yard facing daylight plane which can restrict certain architectural forms and do not significantly affect adjacent properties and clarify and restrict those features allowed to project into the daylight plane

Proposed Regulation: Eliminate the front daylight and street yard facing daylight plane. Allow the following projections into the Daylight Plane:

1. Roof overhangs may extend into the side daylight plane by 2 feet and into the rear daylight plane by 4 feet around the perimeter of the structure **(No change from current code).**
2. Chimney not exceeding five feet in width may extend into the daylight plane, but should be limited to the minimum height required to meet building cod**e (New Provision)**.
3. Dormers and Gable Roof Forms may project into each daylight plane. For each daylight plane, (i.e., the daylight plane on any side of the building), the maximum combined width of these projections above the daylight plane is 15 feet and the maximum width of any individual element must be 7.5 feet and separated by a minimum of 5 feet **(New Provision)**. The maximum height of any projection into the daylight plane is 24 feet.

Proposed Definitions:

Dormer Defined: A small roofed structure that projects outward from a larger sloping roof, often containing a vertical window.

Gable Defined: A gable is the triangular part of an exterior wall enclosing the end of a pitched roof. The gable roof form includes only the roof and triangular end wall. No portion of any wall surface below the plate line at the eave side of the gable roof form should be permitted above the daylight plane.

4. CONTEXTUAL FRONT SETBACK

Existing Regulation(s): The city requires a 20' front setback for most R-1 lots with "special setbacks" along certain identified streets. The regulations allow eaves, cornices, and fireplaces to project 4 feet and bay windows to project 2 feet into the setback. Covered porches (i.e., meeting the definition of "enclosed") are not permitted to project into the front yard setback.

Purpose: Define the minimum front yard setback (Contextual Front Setback) based on neighborhood front setback patterns. To enhance the streetscape, the proposal also permits porches, bay windows, and balconies to project into the front setback.

Proposed Regulation: A Contextual Front Yard Setback standard based on the average front setback for houses on the *same side of the block*. The Advisory Group consensus was the contextual front setback would only be applicable for houses when the average front setback is greater than the current 20' minimum. This standard would not apply on lots located in Special Setback areas. Planning Staff, using the following, would determine the average setback:

1. **Contextual Front Yard Setback Formula:** The average distance from the front property line to the first main building wall of houses on the same side of the entire block *(Note: porches and bay windows would not be considered a main building wall)*. Vacant lots, lots with extreme setback variation from the block, and lots with street facing corner side yards would not be included in the calculation. *(Note: for blocks longer than 600', the contextual front setback would be based on the adjacent 10 houses)*

2. **Allowed Projections into Contextual Front Yard Setback:** The following building elements would be permitted to project into the Front Yard Setback:
   - One story uncovered porch – up to a maximum of 6 feet into the front setback (same as existing regulations).
   - Projecting bay window(s) – up to a maximum of 3 feet into the front setback.

The combined width of all elements cannot exceed 1/3 of the building's front elevation closest to the front setback line.

Graphics: Follow

5. CONTEXTUAL GARAGE PLACEMENT

Existing Regulation(s): There is currently no standard that regulates garage or carport placement relative to a neighborhood pattern, however, the City's voluntary Single Family Residential Design Guidelines suggest a similar approach. Accessory buildings must be located a minimum of 75' from both frontages on a corner lot.

Purpose: To recognize the impact of garage placement on the streetscape. The regulations ***would only affect those neighborhoods with a pattern of garage placement in the rear portion of the lot.***

Proposed Regulation: Similar to that suggested in Palo Alto's existing Single Family Design Guidelines, the regulation would require an attached or detached garage or carport be located in the rear portion of a property, as follows:

If, on the subject property's block, **either** 50% of existing garages on subject property's side of street, **or** 50% of existing garages on both sides of the street are located within the rear portion of the lots, a new garage (either detached or attached) would be required to be located in the rear portion of the subject property. In addition, if the existing pattern includes alley access for garages, and the subject property has alley access to the rear portion of the site: the garage access shall be off the alley.

For properties requiring rear garage placement:

- Detached garages shall be located a minimum of 75' from a front property line and 20' from a street "side" property line on corner lots. (*Note: If the detached garage is located within a side or rear yard setback, it must meet the R-1 Residence Zone's Accessory Building regulations for daylight plane, maximum height, separation from the main dwelling, rear yard area coverage, and use restrictions.* ***(Note: For many corner lots, the lot width is not deep enough to meet the 75' minimum. Staff has approved numerous variance in this circumstance. The proposed 20' requirement ensures the accessory building (garage) does not intrude beyond an adjacent homes' minimum front setback).***
- Attached garages shall be located in the rear 50% of the house footprint depth.

Graphics: Follow

6. RESTRICTIONS ON BAY WINDOW AND FIREPLACE PROJECTIONS INTO MINIMUM SIDE YARDS

Existing Regulation(s): Bay windows and green house windows located on the ground floor are permitted to extend into a required front, rear, or side yard two feet if they are cantilevered with no floor joists projecting into the setback. *(Note: The latter provision is an interpretation and assumes the bay window does not include "habitable area".)*

Purpose: To eliminate fireplace and overly large bay window projections into interior side yards, thereby, mitigating privacy and building mass impacts on adjoining properties.

Proposed Regulation: Only greenhouse windows and oriel windows a maximum 6' in width, framed into the wall can project into the side setback. Fireplace may extend a maximum of 2' in depth and 5' in width into the side setback. (*Note: Staff is preparing a definition of oriel windows and standard for greenhouse window depth.)*

7. PARKING SURFACES (DRIVEWAY MATERIALS)

Existing Regulation(s): The parking/driveway surface must be an impervious surface, such as concrete, asphalt, or interlocking pavers 8' in width. Gravel or grasscrete is not permitted.

Purpose: Allow "Hollywood Strips" and other non-permeable surfaces to be used for driveways in order to increase the landscaping and permeable surface of yards.

Proposed Regulation: The parking/driveway surface may be composed of permeable, unpermeable, or a combination of materials, however, gravel or similar loose materials are not permitted for driveways.

8. 60% PERMEABLE SURFACES STANDARD IN FRONT YARD SETBACK AREA

Existing Regulation(s): None

Purpose: To increase water absorption of the yard surface, reduce run-off, and limit the amount of hardscape surfaces facing the street.

Proposed Regulation: Sixty percent of the required front yard setback area shall be permeable surface that allows water absorption directly to the soil (i.e., without run-off). An exemption is allowed to ensure each lot an impermeable 16' driveway and 4' walkway.

Analysis: Follows

9. OUTDOOR LIGHTING

Existing Regulation(s): None, however, a similar standard was suggested in the voluntary Single Family Residential Design Guidelines for Palo Alto.

Purpose: To improve privacy between neighbors by limiting the location and light beam direction of outdoor lighting. The standard would limit the spread of outdoor light onto neighboring properties and require outdoor light sources to be shielded from direct view.

Proposed Regulation: Direct light from outdoor fixtures will only be permitted to fall onto the subject property's walls, eaves, or yard areas. All outdoor lighting fixtures will be required to have lens covers that diffuse the light or reflectors that shield the lamp from view and direct the light away from neighboring properties.

10. HEIGHT MEASUREMENT CLARIFICATION

Existing Regulation(s): Height in the R-1 zone district is defined as the vertical distance above grade for the highest point of a roof ridge or peak. The height of a stepped or terraced building is the maximum height of any segment of the building. *(Note: Maximum height in the R-1 zone district is 30').*

Purpose: Clarify how maximum building height is measured, especially in consideration of modifications to natural grade. The intent is to define building height on the natural topography of the site rather than artificial topography created by earthwork and/or retaining walls.

Proposed Regulation: Height in the R-1 zone district would be defined as the vertical distance at any point on the site from the roof of the structure, including wall parapets, to the grade directly below. *Note: Eliminates the current practice of measuring height at a point five feet from the building. (See grade definition clarification)*

11. GRADE DEFINITION CLARIFICATION

Current Regulation(s): "Grade" means the lowest point of adjacent ground elevation of the finished surface of the ground, paving, or sidewalk, excluding areas where grade has been raised by means of a berm, planter box, or similar landscape feature, unless required for drainage within the area between the building and the property line, or when the property line is more than five feet from the building, between the building and a line five feet from the building. In building areas with natural slopes in excess of ten percent (based on the difference between the lowest and highest elevation on the subject site), "grade" shall mean the adjacent ground elevation of the finished or existing grade, whichever is lower.

Purpose: To Clarify the definition "grade" for the zoning ordinance, particularly with consideration of how grade is used in height measurement. The proposal is intended to emphasize natural grade for zoning purposes.

Proposed Regulation: "Grade" means the lowest point of adjacent ground elevation, prior to any earth moving, fill, or padding. In building areas with natural slopes in excess of ten percent (based on the difference between the lowest and highest elevation on the subject site), "grade" shall mean the adjacent ground elevation of the finished or existing grade, whichever is lower.

12. REQUIREMENTS FOR UNDERGROUND GARAGES

Existing Regulation(s): Underground garages are not permitted in the R-1 zone district.

Purpose: The purpose of the proposal is to permit underground garages where the driveway ramp, underground parking court, and underground garage will not be visible from the street or neighboring property.

Proposed Regulation: Underground garages would be permitted in the R-1 zone district, provided that:

a) The garage is located under the main dwelling in a manner that meets the zoning standards applicable to a "basement".
b) No portion of the driveway ramp or any subterranean parking court is located within a required front, rear, or side yard.
c) The driveway ramp, subterranean parking court, and the garage structure, including garage doors, are screened from view from adjoining public and private property by garden walls, fences, and landscaping. Screening landscaping between these facilities and adjacent properties must be predominantly evergreen plants that are fast growing and reach a minimum of 15 feet in height.

Staff Addendum: These development regulations are intended to mitigate adverse impacts on adjacent neighbors and the streetscape. ***Staff is proposing that a review of underground garages be deferred to the Zoning Ordinance Update program.***