

## **CRCRC RECOMMENDATION ON RESIDENTIAL BUILDING HEIGHTS AND HEIGHT MEASUREMENT**

Building height has been at the center of CRCRC discussion from the beginning and is arguably the one thing most responsible for bringing the CRCRC into existence. While the current building height ordinance has worked well for more than 20 years, recent “outlier” builds that took excessive advantage of its slope forgiveness feature have caught the public’s attention and concern. The CRCRC survey conducted in late 2023 confirmed this concern. Survey responses guided a CRCRC subcommittee consisting of two professional architects and one non-architect who searched for analogue cities whose high property values and sloping topography matched Rollingwood’s. The subcommittee combined findings from those city’s building codes with its own ideas, observations and outside discussions to arrive at a building height and height measurement approach that will mitigate future outliers without creating disruption to the current surge in residential building. The CRCRC believes that recommendations that follow meet that objective.

### **MAXIMUM RESIDENTIAL BUILDING HEIGHT**

*Analysis of 274 Respondents to 2023 CRCRC Survey:*

Q3: Is Rollingwood’s maximum residential building height of 35 feet:

Too high:	71	26%
Not high enough:	21	8%
About right:	175	64%
Blank:	7	2%
Comments:	109	40%

Maximum height: Austin - 32ft

Westlake Hills - 30ft

Lakeway - 32ft

### **CRCRC RECOMMENDATION:**

*Sec. 107-71. - Maximum permissible height - Unchanged - No portion of any building or structure (except a chimney, attic vent, lightning rod, or any equipment required by the city building code) may exceed 35 feet in height. Except as may be required by applicable codes, no chimney, attic vent, lightning rod or required equipment may extend more than three feet above the highest point of the following: the coping of a flat roof, the deck line of a mansard roof, or the gable of a pitched or hipped roof.*

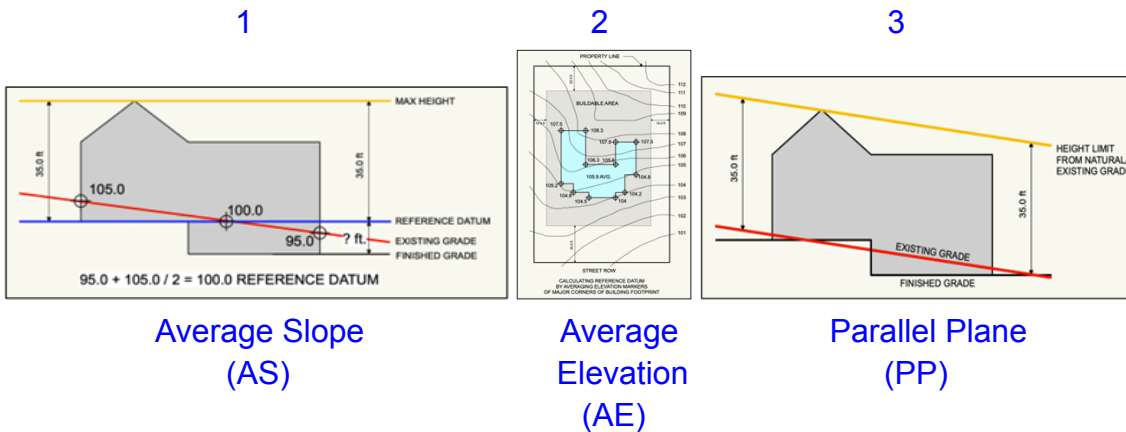
### **RATIONALE**

The polling numbers show strong support for “About right” and to a lesser degree “Too high”. Comments on this question are varied, but primarily focus on the challenges of sloped lots; how new homes should fit into the existing neighborhood; and concerns that the current system is being “gamed”.

## RESIDENTIAL BUILDING HEIGHT MEASUREMENT

Q4: Should we look at alternate ways to measure building height?

Yes:	171	65%
No:	89	32%
Blank:	14	5%



If so, which of the ways listed above would you prefer?

Scenario 1: Average Slope (AS)	25	9%	15% of yes
Scenario 2: Average Elevation (AE)	24	9%	14% of yes
Scenario 3: Parallel Plane (PP)	78	28%	46% of yes
Comments:	170	62%	

Height measurement: Austin - AS      Westlake Hills - PP      Lakeway - varied

**Discussion:** This question pair could have been designed better. While it does a pretty good job determining if alternate measurement methods should be considered (65% yes), the scenario selection and comments shouldn't have been combined into a single field. So, the responses include various combinations of scenario selection and comments that support it or some other view. Most of the responses are "1", "2", or "3". Some are "1 or 2". Many comments do not include a scenario preference but do make a statement. Statements range from, "I'm not sure, I'd have to see what 35 feet high looks like," to, "the problem is not the height, but the scamming that goes on in measuring the height," to, "35ft is so close to perfect, it's not worth changing". For reasons discussed below, the popular scenario, *parallel plane*, was likely preferred because its description featured this statement: "This method does not provide height forgiveness".

There are also likely several reasons why there are fewer scenario selections than "yes" responses. One is because the question features complex geometries whose features and differences might have been confusing to the respondent. Another is that the

respondent didn't feel qualified to choose and so thought that the decision was better left to those who'd really studied the issue. Finally, the scenarios as posted were not labeled "1, 2, 3", or "A, B, C", instead, the respondent was left to recognize that the order in which they were presented established how the question needed to be answered: first, second, or third. Again, an issue of flawed question design.

**CRCRC RECOMMENDATION:**

Sec. 107-3. - Definitions

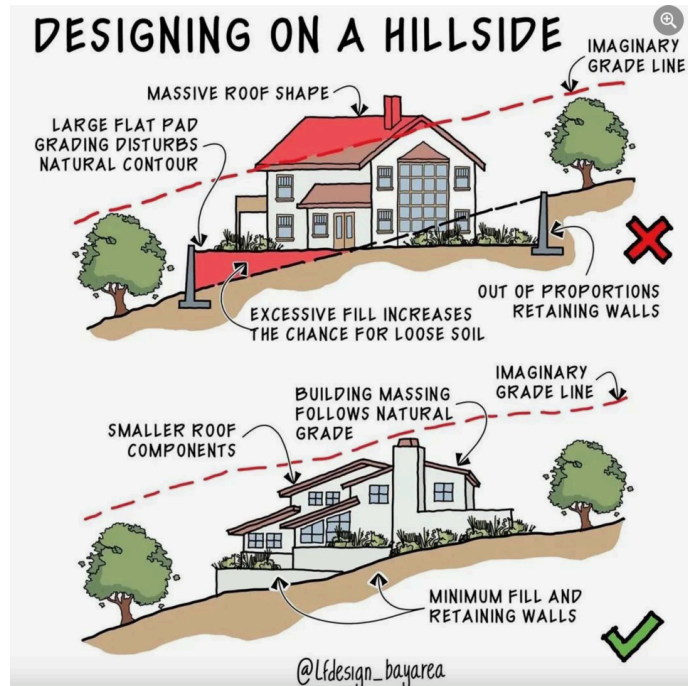
*Building height, residential, means the vertical distance from the original native ground surface or finished grade, whichever is lower, to the highest point directly above.*

*Original native ground surface is the existing grade on the lot prior to development of the residential building as may be shown on approved building plans or survey of the property.*

**RATIONALE:** The combined "About right" (175) and "Too high" (71) responses to the 35 foot maximum building height question above suggests a strong Rollingwood preference for no more than 35 feet (90% of responses altogether). Both the datum calculated by *average slope (AS)* and the datum calculated by *average elevation (AE)* approaches allow for recovery of some maximum height loss to even the slightest grade change. This means that the maximum allowable is not really 35', but rather 35' plus half of the elevation difference within a buildable area + or -. For example: if across the buildable area there is 6 feet of relief (a fairly common relatively flat lot in Rollingwood), a maximum allowable building height on the lower side of the buildable area would likely be 38':  $(35' + (\frac{1}{2} * 6')) = 38'$ . The current method would have allowed recovery of the full 6' of relief, so the averaging method does provide some improvement over the current one. However, given the strong preference for a 35' maximum, and the many CRCRC survey comments that discuss height "gaming" and "better enforcement", the CRCRC recommends adoption of a method that does not calculate from a datum average, but rather uses the existing native grade survey to establish the maximum allowable building elevation.

It works like this: consider a survey of a lot's buildable area that is complete with contours. Now add 35' to each of those contours to create a parallel contour surface or plane that is directly above the existing survey. The space between those two surfaces represents the maximum height allowable at any point within the buildable area. No part of the planned building may penetrate the 35' surface, and therefore no part of the building may exceed 35' in height. The big difference in methods is that the existing grade calculation moves up and down with the topography. Conversely, both datum averaging methods create a buildable-area-wide maximum that is represented by a perfectly horizontal line or plane that is not sensitive to the topography.

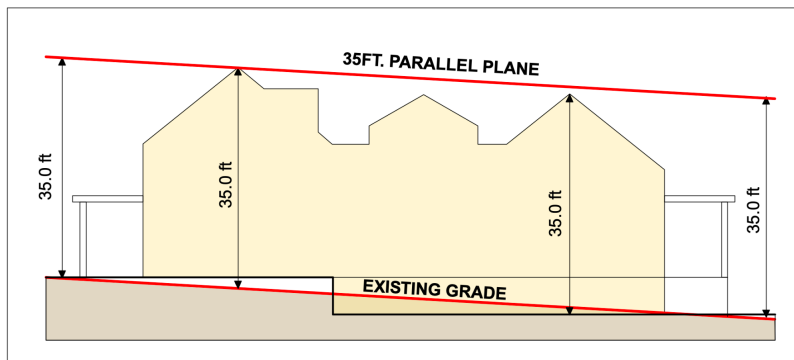
In a nutshell: Datum averaging = changing the topography to conform to the building design;  
Native grade = designing the building to conform to the topography



## EXECUTION

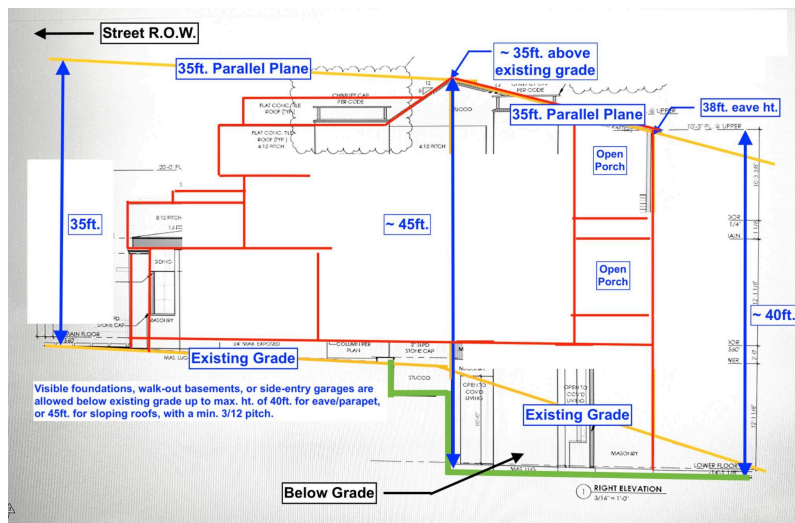
### **Figuring Maximum Allowable Height:**

1. Start with an existing grade survey complete with contours within the buildable area limits.
2. Reconcile the existing survey across the footprint of a knocked-down house by straight-line interpolation between like-elevation contours that are adjacent to the heritage footprint. Other minor topographic variations, including pools and ponds, should be handled the same way with the intent to approximate the original native grade without penalty due to previous construction.
3. Create a plane directly vertical to the existing survey by adding 35 feet to the reconciled existing survey contours. This is the Parallel Plane.
4. The building elevation measured vertically from the finished grade to the highest point of roofing surface or parapet may not penetrate the Parallel Plane.
5. Building areas fully concealed beneath the finished grade are not included in height calculations.



- There is no limit to the amount of building that may be added below existing grade by way of excavation.

**Recent build on highly sloped lot conforms to parallel plane proposal:**



**MAXIMUM HEIGHT ALONG BUILDING SETBACKS**

Q10: Should we develop a set of “tenting” rules for Rollingwood that restrict building height along a setback?

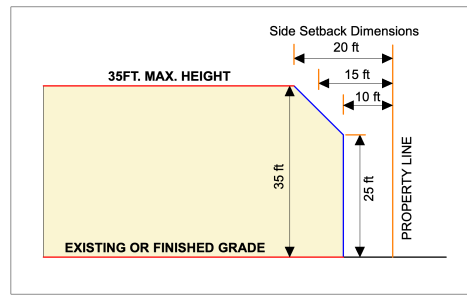
Yes:	143	52%
No:	112	41%
Blank:	19	7%
Comments:	68	25%

**DISCUSSION:** The comments around this question were evenly split - about half saying “Yes, please,” and the other half saying, “they do this in Austin and it’s awful”.

**CRCRC RECOMMENDATION:**

Adopt a set of tenting rules that restricts exterior wall heights incrementally by distance from the lot line

*The maximum allowable building height along the building setbacks, when starting from the 10ft. setback is 25ft. as measured from existing or finished grade, whichever is lower, adding one foot of height to every additional foot of setback, up to 35ft., such that the maximum height of 35ft. is at least 20ft. horizontal from the nearest property line.*



**RATIONALE:** The survey asked several questions about different ways to reign in “bulk”, that is, how a house sits relative to the size of the lot. These Included questions about Floor Area Ratio (132 yes; 125 no), flat roofs vs pitched roofs (100 yes; 165 no), tenting (143 yes; 112 no), and the number of allowable stories limitation (104 yes; 166 no). All can have some positive effect on a building’s “bulk”, but it’s “tenting” that has the most measurable impact and the most public support. The CRCRC looked hard at the Austin tenting guidelines and agree that they are overly ambitious and even onerous. The CRCRC recommends tenting, but tenting kept as simple as possible.

## **FOUNDATION EXPOSURE**

Not explicitly solicited by any 1 survey question but concern expressed in at least 27 comments

### **CRCRC RECOMMENDATION:**

*Foundation exposure within public view from the right-of-way cannot exceed 6'*

*Foundation exposure within public view must be screened such that viewable portion does not exceed 2.5 feet (30")*

## **SPECIAL EXCEPTIONS**

### **CRCRC RECOMMENDATION:**

*Should the slope of a lot be so severe that the requirements proposed above have extreme adverse impact on the lot, an owner may seek relief from these requirements by special exception granted by the Board of Adjustment.*

*Although not required, letters of agreement from adjoining neighbors will be given due consideration.*

*If necessary, the CRCRC will provide examples of “extreme adverse impact” so as to better ground the Board of Adjustment in its decision process.*

## **ALTERNATE OPPOSING VIEWS**

The first City Council reading of CRCRC recommended building heights proposal occurred on April 17, 2024. Over the course of nearly 2 hours, a number of concerned citizens came to the podium to express alternate views on the way building height should be measured, and questioned the CRCRC process. City Council instructed members of the CRCRC to invite more citizen input at its May 14 and May 28 meetings; consider using that input to find a compromise set of solutions and possibly use a special exception as a tool to address difficult cases.

The May 14 CRCRC meeting had 5 citizen speakers: one concerned about the way last year's CRCRC survey was interpreted; one concerned that lots with drainage easements were not being given special consideration; one wanted to better understand how the proposed height changes would affect their property; one suggested that an average elevation approach is more in line with young family's needs; and one praising the CRCRC for its efforts. A lot of the discussion centered on how highly sloped lots were unfairly treated by the parallel plane proposal. In response, the CRCRC building heights subcommittee met and worked up the "Maximum Building Height for Highly Sloped Lots" recommendation, seen below, to accommodate the 10% or so of Rollingwood building lots whose buildable area slope is extreme.

Four of the five citizens mentioned above returned to the May 28 CRCRC meeting. The CRCRC presented an addendum for highly sloped lots, but it was not well received. Comments included that the CRCRC recommendations make for "winners" and "losers" and force a "split level" design on sloped lots, and would not help their particular situations. The CRCRC motioned to table an approval vote until at least the next meeting.

## **ADDITIONAL NOTES:**

1. Establishing an imaginary parallel plane above the existing grade helps maintain the broader context of the highly variable topography in the city, and protects the sanctity of the surrounding neighbors. Its strength lies in its simplicity and dependence on a certified document required for all building permits, namely a survey. Recent changes in the way Rollingwood "ground truths" its surveys, that is, anchoring them to manhole cover elevations, makes establishing the parallel plane as simple as adding 35' to any native ground surface contour.
2. In comparing this approach to recent and previous builds, The CRCRC finds that most fall within the new constraints, while a few of the outliers could have met the new constraints with minor adjustments.
3. There is some public interest in allowing houses built alongside a drainage easement some additional height consideration. The CRCRC will look at this when it gets to its drainage / impervious cover work, not yet started. We expect to find this issue as one that is not common and best worked through a special exception.