Note: this document is in draft. The graphics depicting highly sloped conditions show 18% grade. A change to 15% is under current consideration.

CRCRC RECOMMENDATION ON RESIDENTIAL BUILDING HEIGHTS AND HEIGHT MEASUREMENT

MAXIMUM RESIDENTIAL BUILDING HEIGHT

Survey Results Analysis on 274 Respondents

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. - Unchanged: *Maximum permissible height - 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

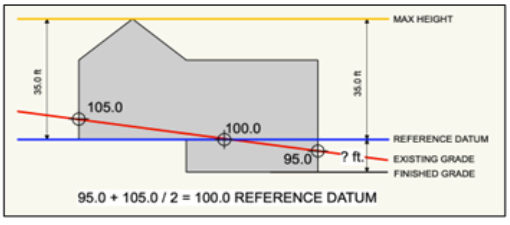
The polling numbers show strong support for "About right" and to a lesser degree "Too high". Comments on this question are varied, but primarily focus on the challenges of sloped lots; how new homes should fit into the existing neighborhood; and concerns that the current system is being "gamed".

RESIDENTIAL BUILDING HEIGHT MEASUREMENT

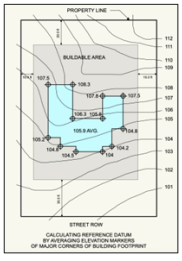
Q4: Should we look at alternate ways to measure building height?

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

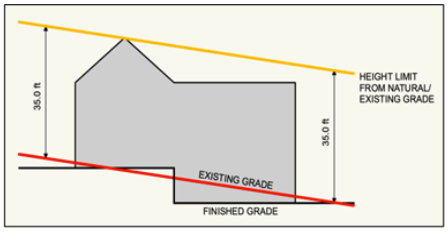
1 2 3



Average Slope



Average Elevation



Parallel Plane

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

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

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 were combined into a single field and they shouldn't have been. 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, popular scenario, parallel grade, 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 answered: first, second or third. Again, an issue of flawed question design.

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

CRCRC RECOMMENDATION:

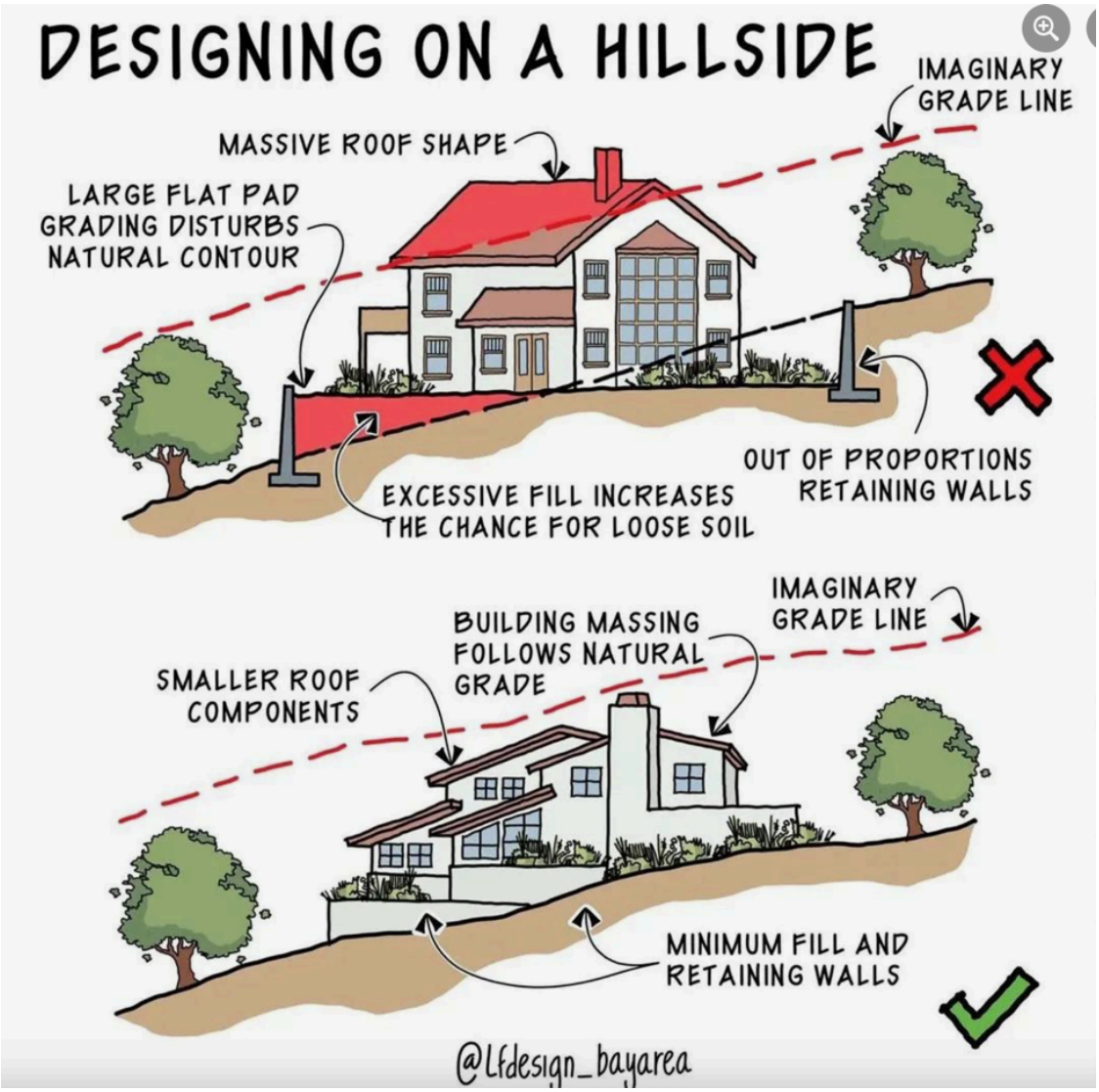
Sec. 107-3. - Definitions.

Building height, residential, means the vertical distance above any point on a surveyed existing grade.

RATIONALE: The combined "About right" (175) and "Too high" (71) responses to the 35 foot maximum building height question above suggest a strong Rollingwood preference for no more than 35 feet (90% of responses altogether). Both the datum calculated by average slope and the datum calculated by average elevation 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' + (½*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 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. There are caveats to each that are discussed later, but that's the basic principle.

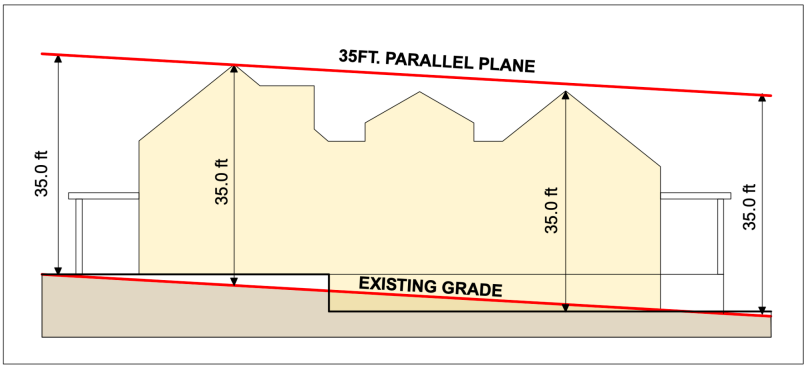
In a nutshell: Datum averaging = changing the topography to conform to the building design; Native grade = designing the building to conform to the topography,



EXECUTION

Maximum Allowable Height by Parallel Plane - General Case:

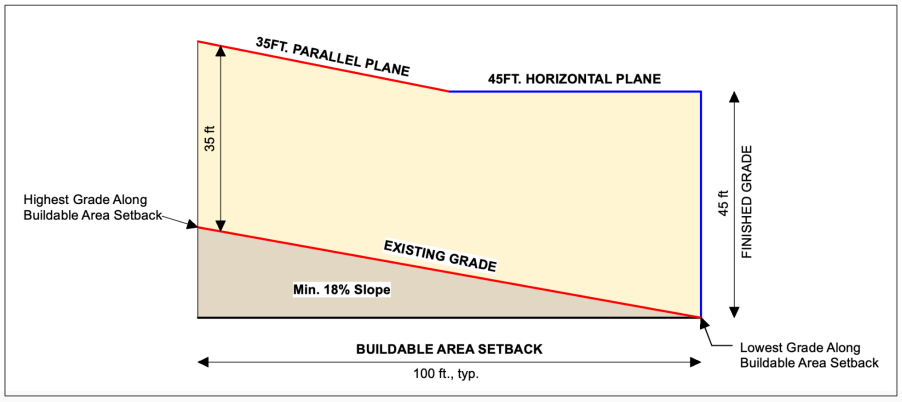
1. Start with an existing grade survey complete with contours within the buildable area limits.
2. Reconcile the existing survey across the footprint of a knocked-down house by straight-line interpolation between like-elevation contours that are adjacent to the heritage footprint. Other minor topographic variations, including pools and ponds should be handled the same way with the intent to approximate the original 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 maximum building elevation is 35ft. measured vertically from the finished grade to highest point of roofing surface or parapet and may not penetrate the Parallel Plane.
5. Building areas fully concealed beneath the finished grade are not included in height calculations.



Maximum Building Height for Highly Sloped Lots:

The CRCRC recognizes that about 10% of Rollingwood lots have considerable slope. Most of that slope faces commercial or wooded areas, i.e. areas from which a view of a greater than 35' wall would not be cause for concern. A secondary maximum elevation calculation was devised for lots whose grade is 18% or greater.

6. **Establish Maximum Slope** (%): using contour elevations of any two opposing major corners along building setbacks, including diagonal. Slope % is calculated as rise (height in ft.) over run (distance in ft.) x 100.
7. **When Maximum Slope is minimum 18%** as calculated above, then maximum height may be adjusted by extension of a horizontal plane located 45ft. above the lowest existing grade along any setback, which intersects the 35ft. parallel plane established in General Case above.



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; 1 concerned about the way last year's CRCRC survey was interpreted; 1 concerned that lots with drainage easements were not being given special consideration; 1 didn't understand how the proposed height changes would affect their property; 1 suggesting that an average elevation approach is more in line with young family's needs and 1 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 above to accommodate the 10% or so of Rollingwood building lots whose buildable area grade is 18% or greater.

4 of the 5 citizens above returned to the May 28 CRCRC meeting. The CRCRC presented its 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. The CRCRC motioned to table an approval vote until at least the next meeting.

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%

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:

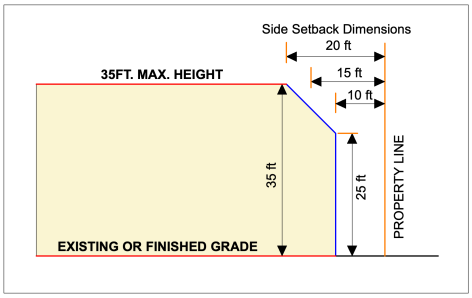
Adopt a set of tenting rules that restricts exterior wall heights incrementally by distance from the lot line.

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 it sits on. 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 of them can have some positive effect on a building’s “bulk”, but it’s “tenting” that has the most measurable impact and has the most public support. We’ve looked hard at the Austin tenting guidelines and agree that they are overly ambitious and even onerous. Our recommendation is to keep it as simple as possible.

EXECUTION

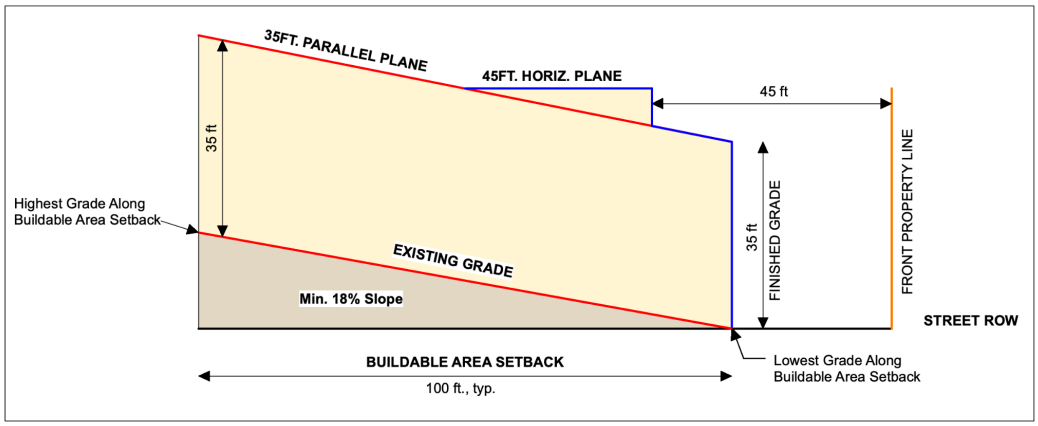
Side Setback:

The maximum 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.



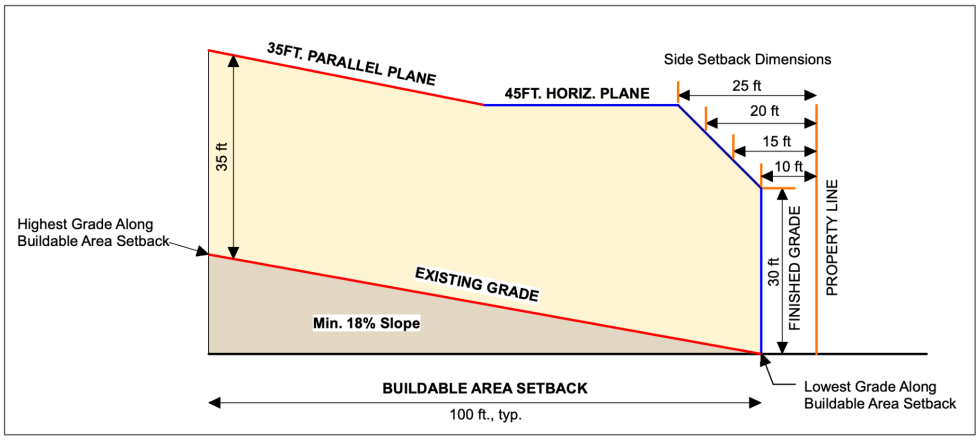
Front Setback - highly sloped lot

Maximum building height along the front setback is 35ft., until 45ft. horizontal from front property line:



Side Setback - highly sloped lot

Maximum building height along the side setbacks, when starting from the 10ft. setback is 30ft., adding one foot of setback to every additional foot of height up to 45ft., such that the maximum height of 45ft. is located 25ft. horizontal from the nearest property line.



Setback Intrusions: No portion of any structure can overhang any setback above 25ft., as measured from adjacent finished grade, with the exception of uninhabitable roof projections. (per RW code)

NOTES:

1. Using slope as a measure for existing conditions helps to eliminate the gaming of contours to meet certain criteria. It frees someone to build within the best features of the site, rather than the area that gets them the greatest height. Percent slope more accurately reflects the true character of a site in terms of whether it is gently or steeply sloping.

2. Establishing an imaginary parallel plane above the existing grade helps maintain the broader context of the highly variable topography in the city, and protect 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 imaginary parallel plane as simple as adding 35' to any existing elevation contour.

3. Imaginary Parallel Plane is more effective at controlling height than determining a reference datum based on average grade, or an average of building corners/midpoints. The latter two formulae still allow for an unknown amount of height to be added back in, which is what RW has currently. We suspect a majority of people who chose that option in the survey noted this detail.

4. Setting a maximum height dependent on finished grade, rather than existing grade, offers more design flexibility, provided it doesn't break the 35ft. parallel plane barrier.

5. Bulk Plane/Tenting restrictions are generous and consistent with many other communities around the country, allowing for multi-story homes of any design style, with some restriction on where the maximum height can be located. Additional side setback height is allowed for slopes 18% or greater.

6. In comparing this approach to recent builds, we find that most fall within the new constraints, while a few of the outliers could have met the new constraints with minor adjustments.

7. 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.