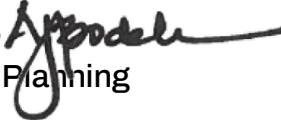


April 17, 2023

TO: Staff

FROM: Amy J. Bodek, AICP
Director of Regional Planning



SUBDIVISION AND ZONING ORDINANCE INTERPRETATION NO. 2023-04 - GROSS STRUCTURAL AREA EQUATION IN THE TWIN LAKES COMMUNITY STANDARDS DISTRICT

Chapter 22.344 of the County Code details the development standards specific to the Twin Lakes Community Standards District (CSD).

In the CSD, there is an equation to determine the Gross Structural Area (GSA) for certain specified subdivisions in the CSD area. The current code has the equation listed as:

$$\text{GSA} = (A/5) \times [(50-S/35) + 800$$

However, there is a missing parenthesis. After reviewing the originally adopted CSD language, it was determined that the parenthesis should be around the “50-S” portion of the equation, as follows:

$$\text{GSA} = (A/5) \times [(50-S)/35] + 800$$

This error will be corrected in a subsequent technical update to reflect the original equation as was adopted in 1991. For application of the equation, please reference the attached Appendix.

AJB:CC:MSH:KK:ar

Attachment

S_04_17_2023_AP_L Interpretation_of_Gross_Structural_Area_Calculation_Twin_Lakes_CSD

SHAPING
TOMORROW

APPENDIX

The Twin Lakes community was established in the early 1900s as a resort cabin community. During the Great Depression, the community transitioned from vacation homes to permanent residences. However, the community was not planned for full-capacity, permanent occupancy; it is in a Very High Fire Hazard Severity Zone and has hillsides, undersized lots, narrow roads, and septic system issues.

As such, the Board of Supervisors (Board) issued an urgency ordinance in 1977 to limit development while more permanent solutions could be established. The Twin Lakes Community Standards District (CSD) and related Twin Lakes Community Plan were both adopted by the Board of Supervisors in 1991 and included standards to require full setbacks, road improvements, fire hydrants, sewage facilities, and compliance with a gross structural area formula for certain antiquated subdivisions.

This is a step-by-step guide for planners to review plans and counsel the public on the following code language:

22.344.080 - Area Specific Development Standards.

A. Area 1 (Small Lot Subdivisions)—All Property Located Within the Following Records of Survey*: 24-25, 25-44, 25-46, 26-42, 28-23.

1. Slope Intensity Formula. Construction of residential units or any improvements to residential units on a lot of less than 6,000 square feet shall be subject to the following:

a. The maximum allowable gross structural area of a residential unit to be constructed on a building site shall be determined by the following formula:

$$\text{GSA} = (A/5) \times [(50-S)/35] + 800$$

Where: GSA = The allowable gross structural area of the permitted development in square feet. The GSA includes the total floor area of all enclosed residential and storage areas but does not include vent shafts, garages or carports designed for the storage of autos.

A = The area of the building site in square feet. The building site is defined by the applicant and may consist of all or a designated portion of the one or more lots comprising the project location. All permitted structures must be located within the designated building site; and

S = The average slope of the building site in percent as calculated by the formula:

$$S = I \times L/A \times 100$$

Where: S = Average natural slope in percent;

I = Contour interval in feet, at not greater than 25-foot intervals, resulting in at least five contour lines;

L = Total accumulated length in feet of all contour intervals (I); and

A = The area of the building site in square feet.

b. All slope calculations shall be based on natural, ungraded conditions. Maps of a scale generally not less than one inch equals 10 feet (1" = 10'), showing the building site and natural slopes, prepared by a licensed surveyor or registered professional civil engineer, shall be submitted with the application. If slope is greater than 50 percent, enter 50 for S in the GSA formula.

c. The maximum allowable GSA as calculated above may be increased as follows:

i. Add 500 square feet or 12.5 percent of the total lot area, whichever is less, for each lot which is contiguous to the designated building site, provided that such lot is combined with the building site and all potential for residential development on such lot is extinguished or removed.

**Please note that the terms "Records of Survey" and "Licensed Surveys" are interchangeable.*

Step 1:

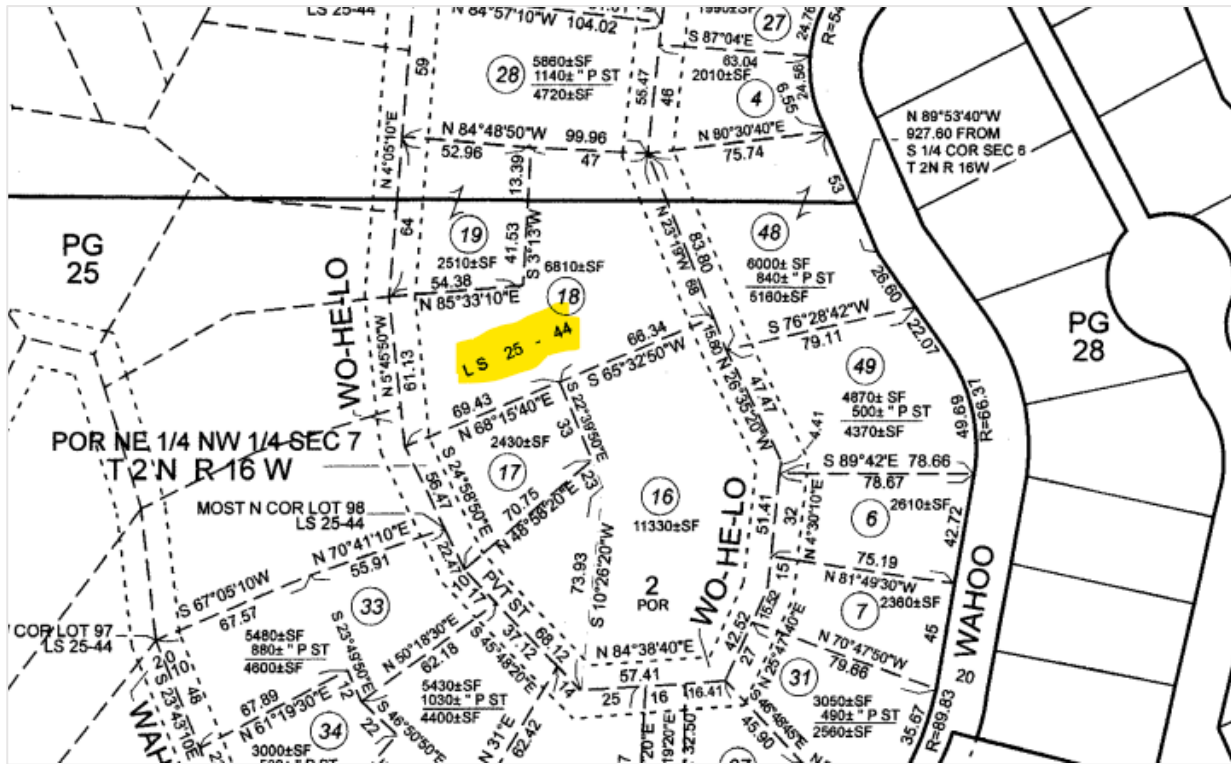
Determine if the subject property is in one of the areas that require the Gross Structural Area equation (lots under 6,000 square feet and within Records of Survey 24-25, 25-44, 25-46, 26-42, 28-23).

Reference the Assessor Parcel Map by clicking on the parcel in GIS to bring up the "Description" and "Hyperlinks" (on the left-hand side of the GIS Map), a screenshot is shown here to the right.

Then, click on the Assessor Map Book Page link.

Description
Parcel Profile Report
Hyperlinks
Assessor Map Book Page
Assessor Parcel Viewer 2018
Assessor Portal Parcel Detail
Building Permits Viewer (DPW)
PDF - Building Use Code Chart
PDF - Building Design Type Chart
Metadata
Details
AIN 2818027027

An example of an Assessor Map Book Page is shown below. As you can see from this example, “LS 25-44” highlighted. This is one of the listed antiquated subdivisions which requires the GSA formula to be applied, if the lot is under 6,000 square feet in size.



If you are unsure whether the subject property is part of one of the antiquated subdivisions, you can check the LA County Public Works website, here:

<https://pw.lacounty.gov/smpm/landrecords/RecordsSurvey.aspx>

(Note: The number following “LS” or “RS” is the book number.)

Step 2:

If the GSA equation is needed, start by calculating the Slope (“S”) using the formula in the CSD:

$$S = I \times L/A \times 100$$

An example will also be included in purple to demonstrate how the data will be input and the order of operations when calculating the total.

Our internal GIS maps have two-foot contour Intervals (“I”). Therefore, in our example, I=2.

$$S = 2 \times L/A \times 100$$

REMEMBER:

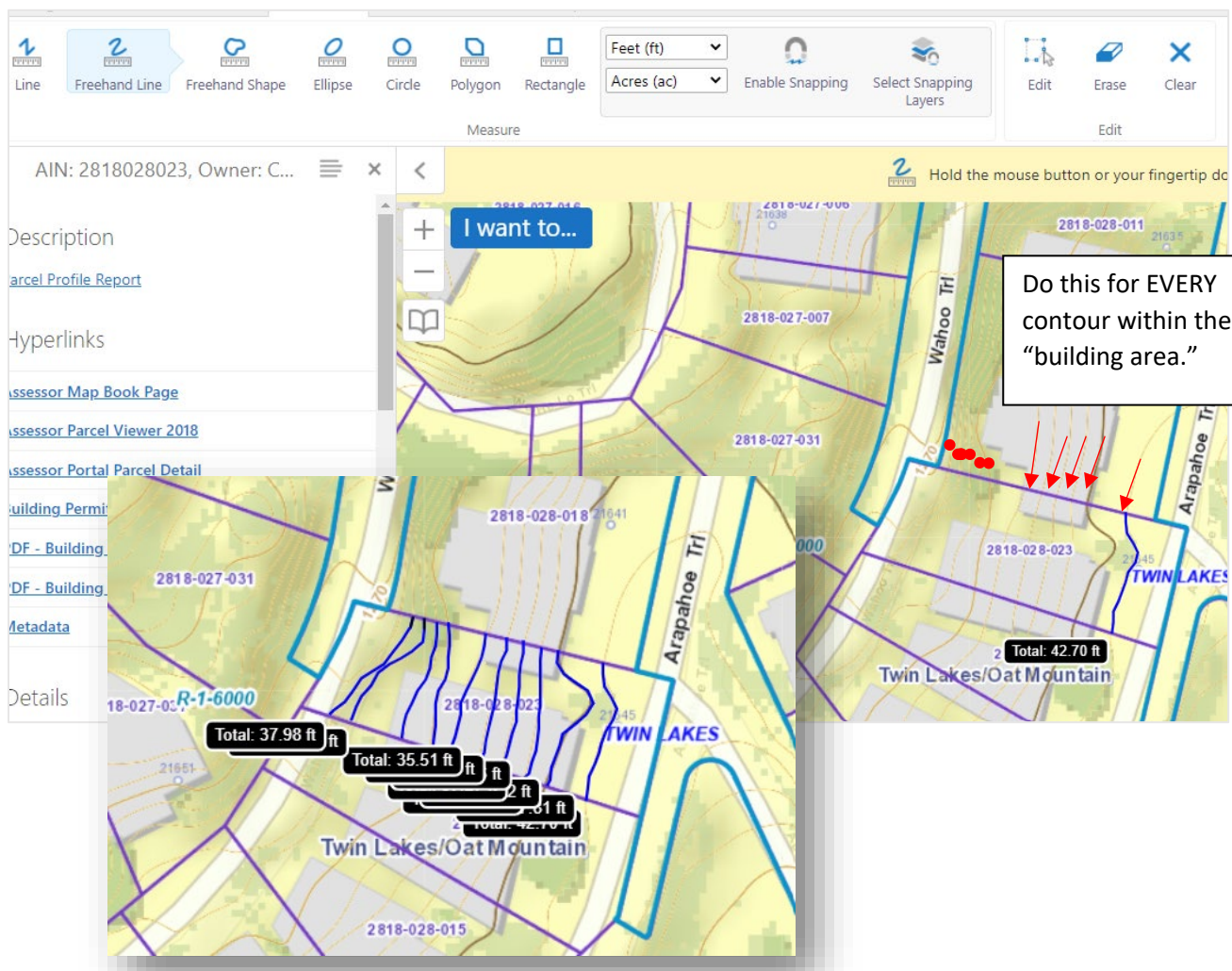
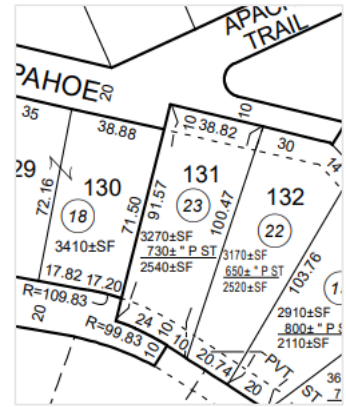
The CSD requires that a licensed surveyor or civil engineer provides these calculations to you!

The Area (“A”) is the building area. In other words, you can deduct the areas they aren’t building on, such as a street dedication.

Using the parcel ending in -023 shown to the right, $A = 2,540$ (because 730 square feet of private street area has been deducted).

$$S = 2 \times L / 2540 \times 100$$

Length (“L”) is found by measuring the length of all contours. The CSD requires that we measure all contours; we should have at least five contours in our measurement. A visual example of what that measurement looks like is included below:



$$42.70 + 47.81 + 38.15 + 38.32 + 37.27 + 36.56 + 37.12 + 35.51 + 38.76 + 37.98 = 390.18$$

$$L = 390.18$$

$$S = 2 \times 390.18/2540 \times 100$$

$$S = 30.723$$

Reminder on the order of operations: Parentheses, Exponents, Multiplication and Division (from left to right), Addition and Subtraction (from left to right)

Step 3:

Calculate the Gross Structural Area (“GSA”) by plugging the Slope and Area¹ into the GSA equation:

$$\text{GSA} = (A/5) \times [(50-S)/35] + 800$$

$$\text{GSA} = (2540/5) \times [(50-30.723)/35] + 800$$

$$\text{GSA} = (508) \times [(19.277)/35] + 800$$

$$\text{GSA} = (508) \times [.055] + 800$$

$$\text{GSA} = 279.79 + 800$$

$$\text{GSA} = 1,079.8 \text{ square feet}$$

As described in the CSD, the allowable gross structural area of the permitted development in square feet includes the total floor area of all enclosed residential and storage areas but does not include vent shafts, garages or carports designed for the storage of autos.

The CSD also allows for an increased GSA by extinguishing or removing the residential development rights of an adjacent parcel – see CSD language for more information.

¹ The Area is the same number used in the Slope equation representing the building area.