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chris LEWIS ARCHITECTS

April 22, 2015

Board of Adjustments
City of Austin
Austin, Texas

Re: Collier Lake House / 1806 Ski Slope Drvie C15-2015-0086

To Whom It May Concern,

Mr. and Mrs. Collier asked me to design a small weekend lake house for their family's use. Knowing that it was a small and steep lot the Collier's and I brainstormed for ways to design the project that would have limited impact on the site specifically with regard to impervious cover and drainage.

We determined that the septic field must be at least 50 feet from the lake and the lot had a 25 foot shoreline setback. The result is that the house is located in the only place it can be. The septic field and parking take up the rest of the lot. **Please refer to Drawing Exhibit A.** Our concept is to elevatie the house, parking, and walkways above the ground by a significant amount. **Please refer to Drawing Exhibit B.** As a result the area of built structure actually touching the ground is limited to 235.5 square feet. If you discount the existing retaining wall we are only adding 148 square feet of impervious cover touching the ground.

By taking this approach I think we are successful in minimizing the site impact and may, if fact, improve the current drainage. Currently, of course, all the site drainage runs unabated downhill into the lake. With the structures raised the existing drainage pattern will not change. After consulting with a landscape architect our intention is to place a bed of large diameter rocks under the footprint of the house. This, coupled with the planted vegetation on the septic field, will actually slow the speed of drainage, curb erosion, and allow for greater percolation of water into the soil. Further, our intention is to collect the roof water run off and direct it into an underground french drain system thereby furthering the ground absorption of water. We will use the same roofing material that is used for potable rainwater collection systems so no pollutants will enter the ground from the roofing material. **This is indicated in the Building Section in Drawing Exhibit B.**

This is not a "mcmansion" type of project. The home is limited to 1396 s.f. with a 747 square foot footprint and is modest in it's materials and design. It is not dissimilar in size to many other projects on the street and will fit nicely into the neighborhood.

Drawing Exhibit C is a diagram showing that the retroactive application of LA zoning restrictions (including 10'-0" side yard setbacks, the 25'-0" shoreline setback, and impervious cover slope restrictions) when coupled with the COA requirement for a viable septic system leads to an allowable impervious cover of only 94 s.f. (2.4% of the lot area))thereby making the lot virtually unbuildable.

Drawing Exhibit D shows the total existing site and proposed impervious cover.

Please note that city departments have already approved a septic design based on theses drawings.

I appreciate your time and consideration.

Sincerely,

Chris Lewis
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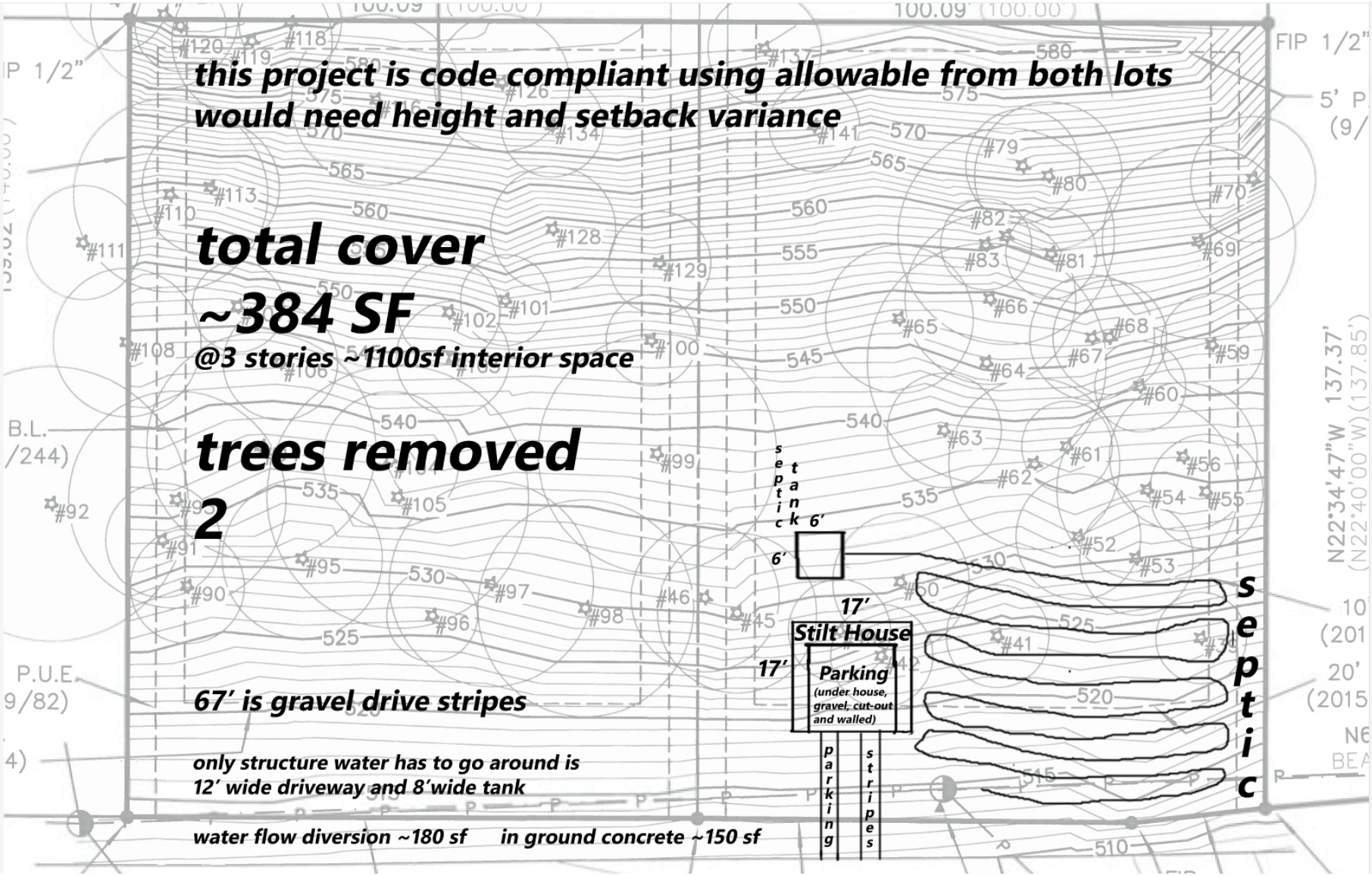
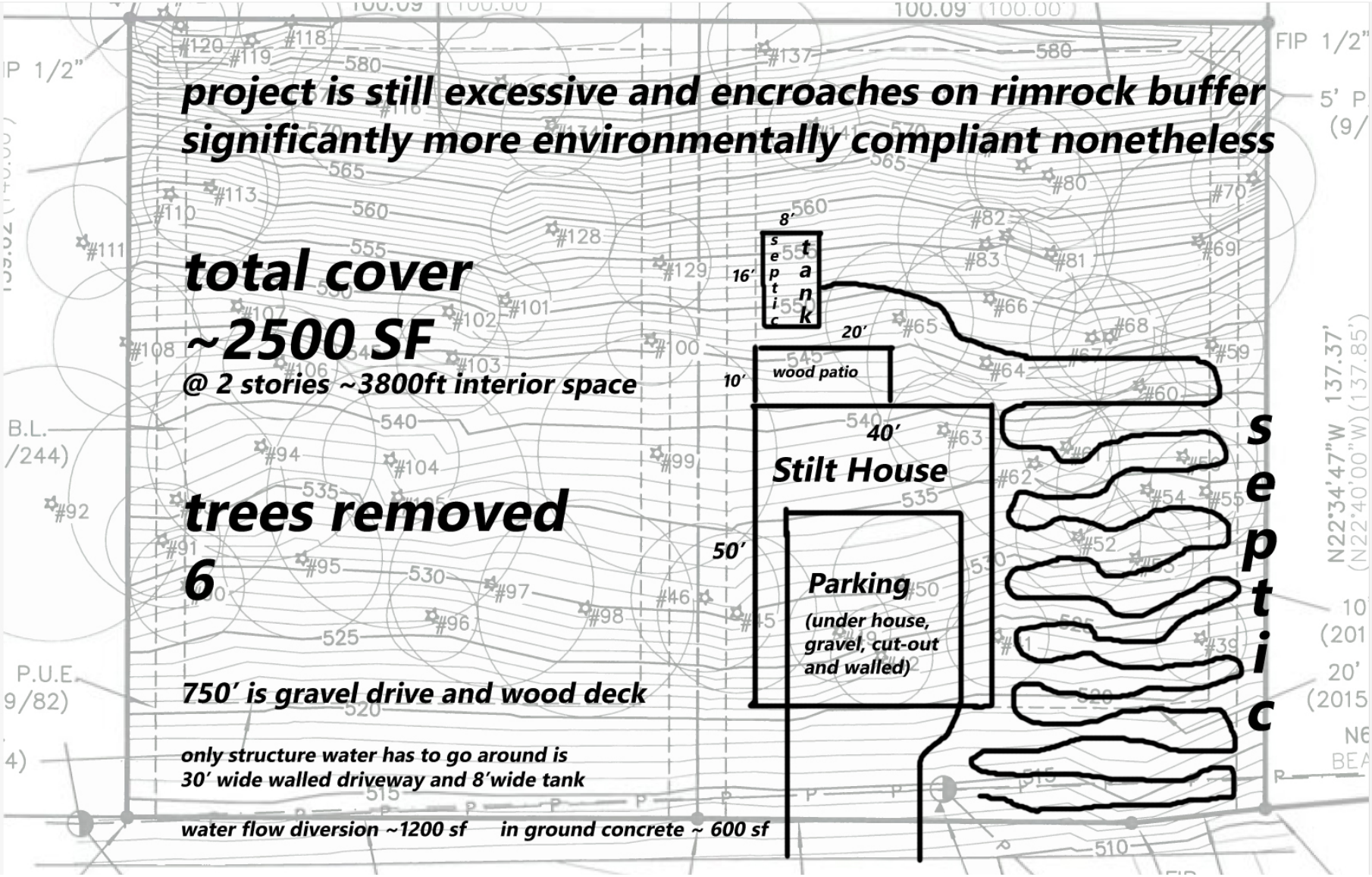

this project is code compliant using allowable from both lots
would need height and setback variance
total cover
~384 SF
@3 stories ~1100sf interior space
trees removed
2
67' is gravel drive stripes
only structure water has to go around is
12' wide driveway and 8'wide tank
water flow diversion ~180 sf
in ground concrete ~150 sf
septic tank
6'
6'
17'
17'
Stilt House
Parking
(under house, gravel, cut-out and walled)
parking
stripes
septic


project is still excessive and encroaches on rimrock buffer
significantly more environmentally compliant nonetheless
total cover
~2500 SF
@ 2 stories ~3800ft interior space
trees removed
6
750′ is gravel drive and wood deck
only structure water has to go around is
30′ wide walled driveway and 8′wide tank
water flow diversion ~1200 sf
in ground concrete ~ 600 sf
8′
16′
septic tank
20′
10′
wood patio
40′
Stilt House
50′
Parking
(under house, gravel, cut-out and walled)
septic

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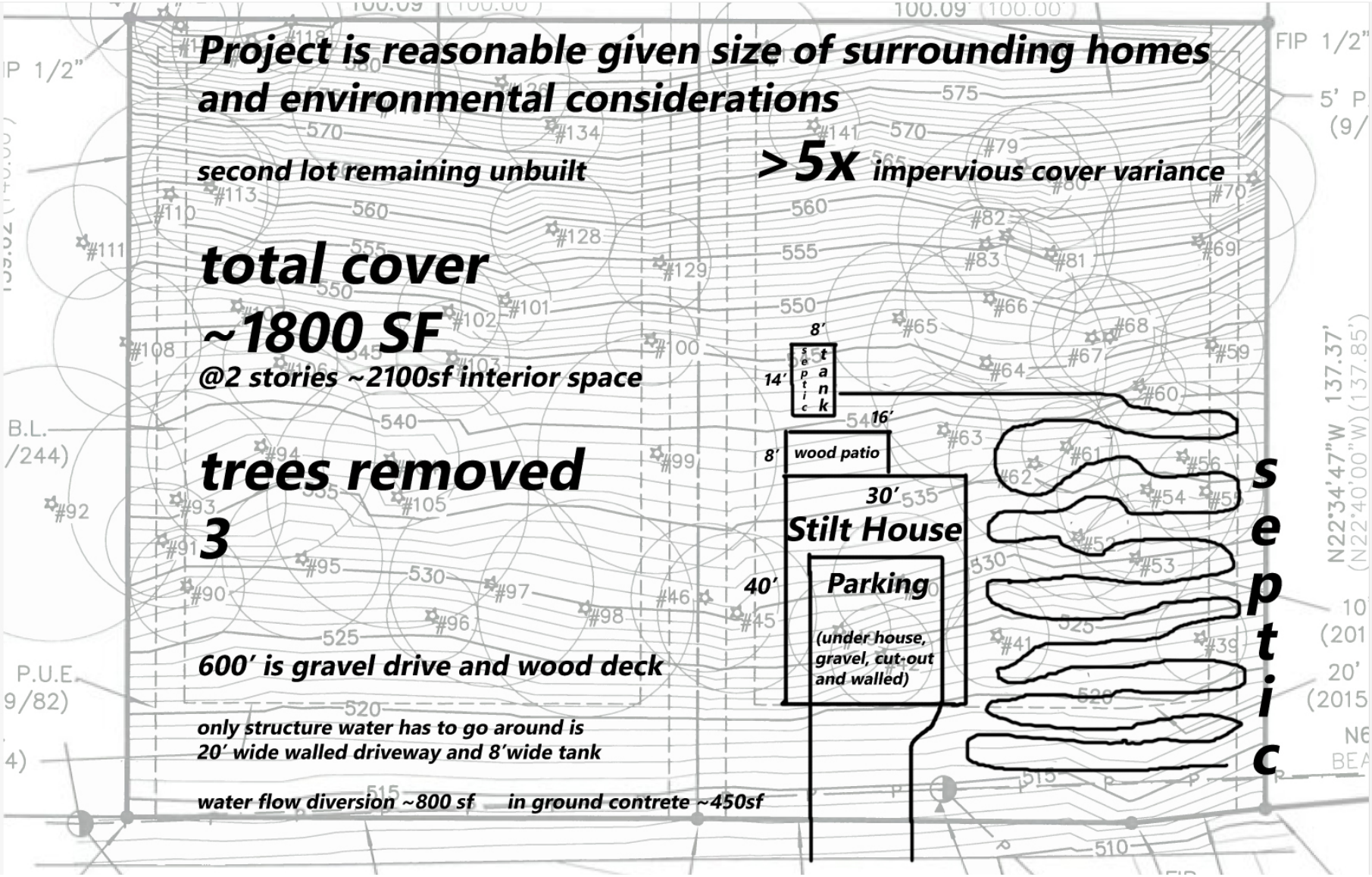

Project is reasonable given size of surrounding homes and environmental considerations
second lot remaining unbuilt
>5x impervious cover variance
total cover
~1800 SF
@2 stories ~2100sf interior space
trees removed
3
600' is gravel drive and wood deck
only structure water has to go around is
20' wide walled driveway and 8'wide tank
water flow diversion ~800 sf
in ground contrete ~450sf
8'
14'
septic
tank
16'
8'
wood patio
30'
Stilt House
40'
Parking
(under house, gravel, cut-out and walled)
septic

Benefits of stilt house construction on a slope

Flexibility with regard to home placement on steep and uneven terrain

Total ground contact area of the structure is minimized,

Less required alteration and grading of the slope

Less need to damage and remove trees

Greatly simplifies drainage design and scale

Construction related environmental disturbance is less

Less detrimental to long term soil health

Parking can be under the house, reducing impervious cover

Well suited to difficult, or environmentally sensitive sites

Provides covered outdoor space for work, play, storage, etc.

Able to better conform to impervious cover restrictions associated with steep city regulated property ☺

Vested Rights Flow Chart

State law chapter 245, a permit may only be considered based on regulations in effect at the date initial permit application was submitted (1959 plat)

applicability
Applies to projects in progress on or after 9/1/97
If
A regulatory agency enforces rules put into place on or after 9/1/97

Former state law 481.143

Says same thing but does not apply, no subsequent permits sought while in effect

Repealed and replaced 1997

City enforces post 1997 rules

Dead end

City does not enforce post 1997 rules

State law mandates the project be subject only to rules in effect circa 1959

What applicable rules were in effect prior to 9/1/97

LA zoning regulations (1981)

Comprehensive watershed protection ordinance (1986)

Lake Austin watershed ordinance (1980)

Minimum lot size requirement clarified 2014, may not be enforcable

Exemption for previously platted neighborhoods, may bot be enforceable, (however projects deriving water from S. Edwards aquifer are not exempt... T.B.D.

Rules for pre 1978 subdivision plats

0-15% 55% impervious cover
<15% 5% impervious cover

Variance requirements are similar but distinct from that which the B.O.A. uses (text in supporting document)

Gone is impair the ordinance, impair neighborhood character, alter use of adjacent property

In their place is

May not be expected to cause any environmental harm

And

Must represent minimum necessary deviation from design standards to allow reasonable use

Alternate method requiring a comprehensive stormwater capture facility on site bears a striking resemblance to their current design (text in supporting document)

Must be approved by city environmental and engineering, which we think is doubtful.

Variance would need to be considered by the planning commission under language not currently in effect, unlikely to occur in out estimation

The 1980 ordinance remains enforceable, allowing 5% impervious cover, with further restrictions, this document is available on the City's website

~13900 x .05 = 700 square feet per lot

No cut and full greater than 4 ft

No driveways steeper than 15%

Variance rules under the 1980 Lake Austin Watershed Document

The variance rules are printed at bottom. Much of the language was clearly borrowed forward to become the current Board of Adjustment text

Absent is mention of impairment of the ordinance and adjacent property use, and neighborhood character

Added is that the variance will be the minimum departure from the code, cause no harmful environmental consequences, and that when comparing development, they must be similarly timed

We believe this is conducive to a stilt house being allowed, having been built on similarly situated steep lots in recent years, and having minimized environmental effects

Variances from the terms of this ordinance may be granted by the planning commission only if it is found that, because of special circumstances applicable to the property involved, a strict application deprives such property of privileges or safety enjoyed by other similarly situated property with similarly timed development.

Where such conditions are found, the variance permitted shall be the minimum departure from site development standards necessary to avoid such deprivation of privileges enjoyed by such other property and to facilitate a reasonable use, and which will not create significant probabilities of harmful environmental consequences.

In no case may a variance be granted that will provide the applicant with any special privileges not enjoyed by other similarly situated properties with similarly timed development.

this document can be found here http://www.cityofaustin.org/edims/document.cfm?id=17929

Alternate method, 1980 L.A. watershed ordinance

An alternate method found in the 1980 document bears striking resemblance to their proposal (see below)

In short, comprehensive storm-water capture facility must be installed on the property, exempting it from impervious cover restrictions

This would need to be approved by the city Environmental and Engineering departments, which we believe is unlikely to happen

This method has brought forth a proposal covering this lot in concrete nearly top to bottom.

The upper retaining wall system near the Rimrocks should not be allowed

Our Civil engineering letter critiques the current drainage plan

Alternative methods - As an alternative to compliance with the site disturbance erosion and sediment control and impervious coverage requirements of this section, the developer may choose to provide a complete storm water management system which shall meet the performance standards set forth below. It shall be the responsibility of the developer to provide the engineering data, calculations, maps, and other information necessary to prove that the development shall not exceed the standards. Said alternatives shall be approved by the director of engineering, if it determines that the alternatives:

(1) will, in accordance with criteria and standards set forth in the department of engineering's Austin Drainage Criteria Manual, not exceed the runoff rate levels predictable under the specific criteria the alternative methods are to replace; and,

(2) will not result in predictable lowering of the water quality (in terms of fecal coliform, lead, total organic carbon, total nitrogen, total phosphorus, hydrocarbons-hexane extract, and suspended solids) of the subject tract runoff from the quality level expected under the specific criteria the alternate methods are to replace.

Any alternate proposals for controlling quality and rate of runoff must be capable of being legally enforced. The developer or applicant shall have the burden of proof in establishing the merits of any proposed alternative methods. The proposal shall be certified by a registered professional engineer with expertise in the area of concern.

All alternative proposals, methods and plans shall be submitted fay the applicant to the directors of engineering and office of environmental resource management for review.

Prior to action on the site development permit application, the city attorney shall approve the enforceability of the proposals.

2803 EDGEWATER C15-2019-0055 INTERESTED PARTY SUGGESTIONS – JAN 13, 2020

- The Board of Adjustment has encouraged us to seek a compromise rather than simply advocating denial of this variance request. We recognize that the applicants have decreased their project's size, but its scale and appropriateness continue to concern us. Do these results conform to the area of character of the neighborhood?

- We are suggesting reasonable development to enable the owners to enjoy the property with less environmental impact.

2803 EDGEWATER C15-2019-0055 INTERESTED PARTY SUGGESTIONS – JAN 13, 2020

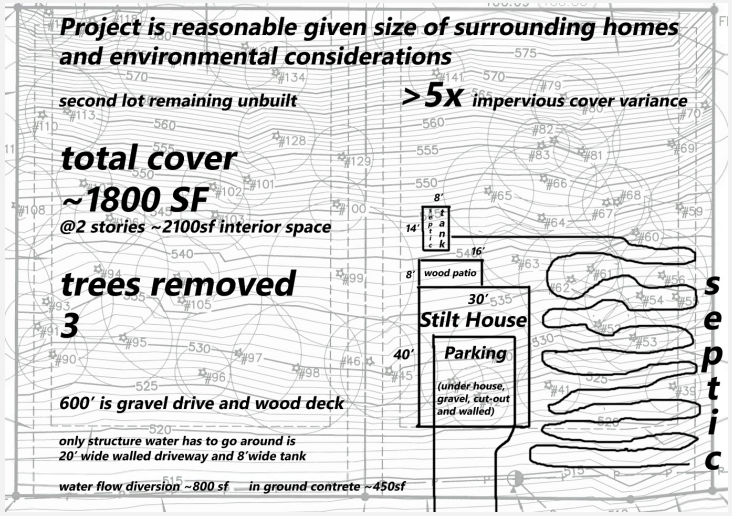
We would propose an alternative development model of a "stilt house" with a pier and beam foundation, a minimal impervious footprint, and a gravity-fed septic system.

A recent example of this construction is 1806 Ski Slope Drive, situated on Lake Austin less than a mile from 2803 Edgewater.

We also suggest that the owners might utilize the adjacent lot which they also own for their septic field.

1806 Ski Slope Drive

Advantages of "stilt" construction – flexibility of placement on slopes, less need to alter and grade the land, less need to damage or remove trees, and greatly simplified drainage requirements.



Rough sketch of sample "Stilt House"