

# CodeNEXT and Mapping

## *Impacts on Lost Creek<sup>1</sup>*

### Executive Summary

The analysis of the draft code and mapping indicates:

1. Six properties are incorrectly zoned
2. One property is zoned by the old code
3. There are issues with the property owned by the Lost Creek Limited District
  - 3.1. One property is zoned LDR but its usage requires a permit
  - 3.2. Seven properties are coded improperly, but there appears to be no code available that represents their use or protects them for the neighborhood's future
  - 3.3. All the LCLD properties still reflect the owner as Lost Creek MUD
4. Most of the residential property in Lost Creek has a zoning that limits housing to 2,300 sq ft. Many homes in Lost Creek are larger.
5. None of the available residential zones for Lost Creek fit all the lot sizes and house sizes in existence
6. The proposed zoning for Lost Creek residential creates numerous conflicts with the deed restrictions setting up a litigious future for Lost Creek
7. There are no provisions in the code to address wildfire mitigation, the largest risk facing Lost Creek
8. The zoning of Lost Creek's commercial zone now allows not just offices but neighborhood amenities. This will likely concern some Lost Creek residents
9. Lost Creek is both a Firewise and Dark Skies community. Nothing in the code reflects those ideals.

### Introduction

This analysis was performed utilizing Chapter 23-4 Zoning Code of CodeNEXT for non-transect<sup>2</sup>

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<sup>1</sup> This analysis was done with the draft version of CodeNEXT and Mapping available April 25, 2017.

<sup>2</sup> The urban-to-rural transect is an urban planning model created by New Urbanist Andrés Duany. The transect defines a series of zones that transition from sparse rural farmhouses to the dense urban core. Each zone is fractal in that it contains a similar transition from the edge to the center of the neighborhood. The transect is an important part of the New Urbanism and smart growth movements. Duany's firm DPZ has embodied the transect philosophy into their SmartCode generic planning code for municipal ordinances. The importance of transect planning is particularly seen as a contrast to modern Euclidean zoning and suburban development. In these patterns, large areas are dedicated to a single purpose, such as housing, offices, shopping, and they can only be accessed via major roads. The transect, by contrast, decreases the necessity for long-distance travel by any means.

zones. The mapping of the code into Lost Creek was made available at the [CodeNEXT](#) web site<sup>3</sup>. In addition, because the resolution of the CodeNEXT mapping was insufficient for this lot by lot analysis, the [Travis County CAD](#)<sup>4</sup>, [Austin's Development map](#)<sup>5</sup> and [Austin Business Journal](#)<sup>6</sup> map were used, often at the same time. Austin's Development maps required the use of MS Internet Explorer. All the others could be accessed via Google Chrome.

## Lost Creek Mapping

The mapping of CodeNEXT non-transect zoning onto Lost Creek is shown below.



The codes shown are:

- LDR – low density residential
- RR – rural residential
- DR – development reserve
- SF-2 – single family residential (old code)
- VLDR – very low density residential
- MF-1 – multifamily (old code)
- PUD – planned unit development

3 <https://codenext.engagingplans.org/codenext-comparison-map>

4 <http://propaccess.traviscad.org/>

5 <http://www.austintexas.gov/GIS/DevelopmentWebMap/Viewer.aspx>

6 <http://www.bizjournals.com/austin/news/2017/04/19/mikes-take-heres-a-better-way-to-see-proposed.html>

- NC – neighborhood commercial
- P – public
- LC – local commercial

See Chapter 23-4D-3 for descriptions of the residential non-transect zones, and Chapter 23-4D-4 for commercial non-transect zones of the [draft code](#)<sup>7</sup>, or summary in the appendix.

There are six properties zoned RR that are incorrectly zoned<sup>8</sup>:

1. Turtle Point Dive (108444)<sup>9</sup> is owned by the City of Austin and is a sewage treatment plant
2. Cypress point North (111755) is a collection of town homes
3. Crosby Circle (541071) is Canyon Vista Condos
4. Falcon Ledge Drive (541094) is the Ridge at Lost Creek Condos
5. 1305 Quaker Ridge (847202) is owned by the City of Austin and houses two water storage tanks
6. A collection of properties (109595, 1009596, 109597) in Y Canyon is actually part of the Barton Creek Wilderness Park and owned by the City of Austin

In addition, one property at 1305 Quaker Ridge is zoned LDR. It is a community building owned and operated by the Lost Creek Limited District. It's use for that purpose is permitted under CodeNEXT as LDR if a conditional use permit is obtained.

Note that the Marshall Tract remains zoned residential (LDR).

Also note that the NC and LC zoning permits use for amenities withing walking distance of the neighborhood. Permitted uses of interest to Lost Creek might be:

- Private schools
- Mobile food sales
- Restaurants
- Food sales
- General retails (< 5,000 sq ft)
- Studios
- Community agriculture

The condos at the entrance to Lost Creek are zoned MF-1 (multi-family). MF-1 is not a zone in CodeNEXT but a carry over from the old code.

There are seven properties managed by the Lost Creek Limited District (LCLD) that are still shown as belonging to the Lost Creek MUD. I think the titles to these properties should reflect the LCLD. All but one of these properties ( the one housing the LD building and playground) are zoned RR. This offers no

<sup>7</sup> <https://codenext.civiccomment.org/chapter-23-4-zoning-code>

<sup>8</sup> New Zoning for Lost Creek: Now What Do We Want to Do?, <http://lostcreekcivicorganization.ning.com/codenext/new-zoning-for-lost-creek-now-what-do-we-want-to-do>

<sup>9</sup> Property ID Number

long term protection for the neighborhood. I think that options should be explored to provide long term protection (either a zoning change or a covenant on the land).

The list of properties is shown below:

Property ID	Geographic ID	Type	Property Address	Legal Description	Owner Name
109598	110270432	Real	S CAPITAL OF TX HY TX	ABS 74 SUR 72 BRAY J ACR 22.70	LOST CREEK MUNICIPAL
111543	111280117	Real	6504 WHITEMARSH VLY WALK TX 78746	LOT 14 LOST CREEK SEC 3-A	LOST CREEK MUNICIPAL
111593	111280248	Real	WHITEMARSH VLY WALK TX 78746	LOT 19 LOST CREEK SEC 3-A	LOST CREEK MUNICIPAL
113595	113250212	Real	6400 AUGUSTA NATIONAL DR TX 78746	LOT 31 BLK 6 LOST CREEK SEC 3-A	LOST CREEK MUNICIPAL
847203	111250710	Real	1301 LOST CREEK BLVD TX 78746	LOT 1A BLK A HILLS OF LOST CREEK SEC 1 AMD LT 1 BLK C & LOT 2-B BLK C RESUB OF LOT 2 BLK C (PUBLIC)	LOST CREEK MUNICIPAL
108419	109280433	Real	LOST CREEK BLVD TX	LOT 25 BLK B *RESUB OF PT OF LOT 42 BLK 14 LOST CREEK SEC 1	LOST CREEK MUNICIPAL UTILITY D
113620	113250237	Real	6630 WHITEMARSH VLY WALK TX 78746	LOT 67 BLK P HILLS OF LOST CREEK SEC 4 PHS A THE HILLS OF LOST CREEK SEC 4 PHS B THE	LOST CREEK MUNICIPAL UTILITY D

## Lost Creek Zoning

The majority of Lost Creek's residential area is zoned LDR. The basic characteristics of the LDR zone are:

- Lot size: > 5,750 sf
- Impervious cover: <45%

- Building cover: <40%
- Set backs: Front 25 ft, Side St. 15 ft, Side 5 ft, Rear 10 ft
- Building height: within 80 ft of front property line 2, Beyond 1
- Building size: 2,300 sf, or FAR<sup>10</sup> 0.4 (most restrictive)

In addition to these conditions, there are multiple overlay zones that affect all or part of Lost Creek (see foot note 6 for more information). Those overlays include Barton Springs Overlay, Austin Watershed Regulation Area, Hill Country Roadways, and Scenic Roadways. The Barton Springs Overlay applies to almost all of Lost Creek and limits impervious cover to <25%.

The problem with the use of this zoning for Lost Creek (LDR) is that it limits the size of the home to 2,300 sq ft. Many homes in Lost Creek are larger than that. Only 65 homes in Lost Creek would meet the LDR specifications. The other two non-transect zoning options available for Lost Creek are VLDR and RR. VLDR allows lot size to be greater than 10,000 sq ft, but still only permits a house size of 2,300 sq ft. RR has no limit on house size but requires a lot size of 1 acre minimum. To find an existing zoning solution or to modify the proposed zoning would require a lot by lot analysis of lot size and house size<sup>11</sup>. Applying all three zoning categories to Lost Creek as written would still cover less than 30% of the single family homes.

The uses permitted by the LDR zone are numerous. The most important ones are listed in three tables.

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10 Floor area ratio (FAR) is the ratio of a building's total floor area (zoning floor area) to the size of the piece of land upon which it is built. The terms can also refer to limits imposed on such a ratio. As a formula: Floor area ratio = (total amount of usable floor area that a building has, zoning floor area) / (area of the plot)

11 See appendix for the beginning of this analysis.

Use	Low Density Residential (LDR)
Accessory Dwelling Unit	P
Bed & Breakfast	CUP
Home Occupations	P
Senior/Retirement Housing (<12)	MUP
Single Family	P
Short-term Rental	P
Group Home (<7)	P
Group Home (7 - 15)	CUP
Day Care (<7)	P
Day Care ( 7 - 20)	CUP
Library, Museum or Public Art Gallery	CUP

Use	Low Density Residential (LDR)
Meeting Facility	CUP
Public Safety Facility	CUP
Religious Assembly Facility	P
College or University	CUP
Private Primary	CUP
Private Secondary	CUP
Public Primary	P
Public Secondary	P
Entertainment, Outdoor, Limited	
Park/Playground	P
Community, non-profit recreation	CUP

Use	Low Density Residential (LDR)
Agricultural support	
Community Agriculture	P
Stables	
Accessory Uses	P
Communications	P
Utilities, Local	CUP
Telecommunications	P
Temporary Uses	TUP
Special Uses	CUP

P – permitted

CUP – conditional use permitted

MUP – minor use permitted

Blank – not permitted

TUP – temporary use permitted

Many of these uses are not permitted in the deed restrictions. There are 19 sets of [deed restrictions](#)<sup>12</sup> in Lost Creek. A thorough analysis would require analyzing each set of deed restrictions and matching them against permitted uses. However, I'm fairly sure that ADU<sup>13</sup>s and STR<sup>14</sup>s are not permitted in most of the deed restrictions.

This conflict between city code and deed restrictions left unresolved can only be settled by individual lawsuits. CodeNEXT is creating a litigious environment where neighbors will be suing neighbors, developers and the city, and vice versa<sup>15</sup>. There are three ways out of this dilemma:

1. A class action lawsuit establishing that deed restrictions prevail over city code, or vice versa.
2. Change the deed restrictions to conform with the city code, or change the code to conform to the deed restrictions.

<sup>12</sup> [http://lostcreekld.org/default.aspx?section=deed\\_restrictions](http://lostcreekld.org/default.aspx?section=deed_restrictions)

<sup>13</sup> Auxiliary Dwelling Units

<sup>14</sup> Short Term Rentals

<sup>15</sup> Read more at <http://lostcreekcivicorganization.ning.com/codenext/codenext-vs-deed-restrictions>

3. Let each neighborhood decide which rules apply.

The major characteristics of ADUs are:

- Impervious cover: <45%
- Building coverage: <40%
- Building height: 30 ft (2 stories)
- Floor area: <1,100 sf or FAR 0.15 (greater)
- Floor area 2nd floor: <550 sf

The major characteristics of STRs are:

- Type 1: Can include partial rental, <30 days, owner in residence, 1 rental at a time, license
- Type 2: ,30 days, not owner occupied, entire residence, license, < 3% of sf residences in census tract
- Type 3: ,30 days, part of multi family residential unit,, entire residence, < 3% of units

Some people might view these additional uses of the land as positive because it allows the owner to make money from the property. The tax appraiser would probably agree and increase the value of the land. Others would view them negatively as a diminishment of the single family housing neighborhood they bought into. It might also alter the type of purchaser for the property to someone who wants to develop the land more.

## Other Concerns

### *Wildfire Mitigation*

There are two areas in CodeNEXT that should include regulations that will mitigate the danger of wildfires destroying homes and lives. The Austin Fire Department is working on standards based in part on international wildfire safety standards for Section 23-2 Administration and Procedures. Lost Creek will probably be supportive of this improvement. There is nothing in the transect or non-transect zoning-code that reflects wildfire mitigation. This is a missed opportunity that should not be missed and included into CodeNEXT.

A major feature of transect planning is that it incorporates a variety of residential and commercial spaces into a single neighborhood. A typical neighborhood would consist of a light commercial area with a bank, general store, pub, coffee shop, and apartments. Moving outwards from the center, residential density would gradually decrease starting with apartments to townhouses to fully detached houses. The central area would be a focus of transit and ideally be within walking distance from any point in the neighborhood.

The Transect has six zones, moving from rural to urban. It begins with two that are entirely rural in character: Rural preserve (protected areas in perpetuity); and Rural reserve (areas of high environmental or scenic quality that are not currently preserved, but perhaps should be). The transition zone between countryside and town is called the Edge, which encompasses the most rural part of the neighborhood, and the countryside just beyond. The Edge is primarily single family homes. Although Edge is the most purely residential zone, it can have some mixed-use, such as civic buildings (schools

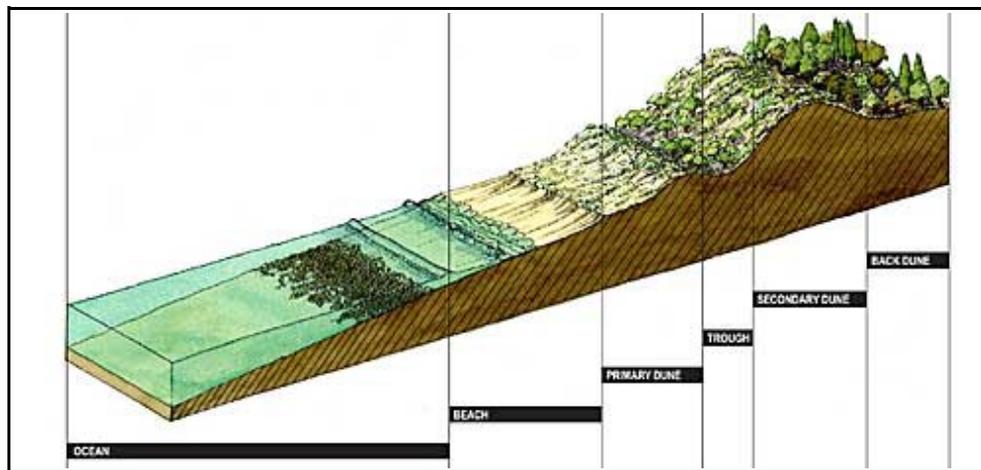
are particularly appropriate for the Edge). Next is General, the largest zone in most neighborhoods. General is primarily residential, but more urban in character (somewhat higher density with a mix of housing types and a slightly greater mix of uses allowed). At the urban end of the spectrum are two zones which are primarily mixed use: Center (this can be a small neighborhood center or a larger town center, the latter serving more than one neighborhood); and Core (serving the region — typically a central business district). Core is the most urban zone.

The character—from rural to highly urban—of each of the zones in the transect continuum is made up not only of the land uses and activities that take place in that zone, but the degree of development and the typology of that development. In contrast to conventional 20th-century zoning, which was for the most part concerned with land uses and activities and largely ignored issues of typology and community form (also known as urban form), transect-based zoning codes take up the issue of development typology as a principal concern.

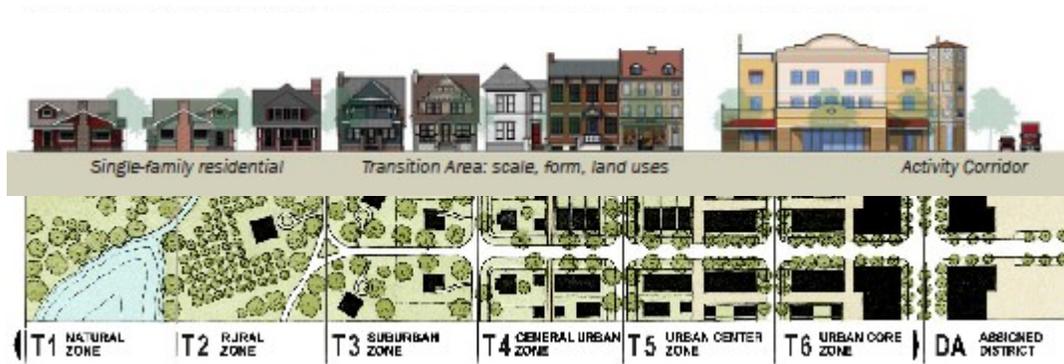
## What's Missing?

Safe and livable transition from single family homes to wild land (wild land urban interface or WUI)

The concepts of transects comes from its use in biology and ecology. Line transects are used when one wishes to illustrate a particular gradient or linear pattern along which communities of plants and, or animals change. They provide a good way of being able to clearly visualize the changes taking place along the line. In an ecological sense, a zone of the transect line shows how different living species can coexist with the zones on either side of it.



Transects are used in the new urbanism and in CodeNEXT as shown below: from natural zone to urban core zone.



In Lost Creek, and in many other neighborhoods in the city, the suburban zone is adjacent the natural zone. Using the ecological metaphor, the two zones are incompatible, and in the natural world, could not be sustained.

There are two elements of this incompatibility that are not addressed in the code – wildfire danger and animal interaction including humans who live in the suburban zone and visit the natural zone. (See appendix for descriptions)

When T2 is missing in the city and T1 is adjacent T3, the Firewise Ignition Zone<sup>16</sup> should replace the missing T2.

Lost Creek is a Firewise community and is working to be come a Wildfire Adapted Community. The land development code should recognize and support this.

## ***Signage***

The signage section is missing a this time.

## ***Dark Skies***

Dark Skies is not overtly mentioned in the code. Lost Creek is a Dark Skies community and wants the code to reflect those principles and specifications in the new land development code.

## **Future of Lost Creek**

Lost Creek was not developed with the new urbanism in mind. As a result, it will be difficult to apply the principles retroactively. Essentially, Lost Creek has a major component reversed. On Loop 360 around the intersection with Lost Creek Blvd. Lost Creek's commercial district resides. Except for one late development, all the multi-family housing exists along the WUI.

If new urbanism principles had been used, more than likely all of the multi-family housing would have

<sup>16</sup> The concept of the home ignition zone was developed by USDA Forest Service fire scientist Jack Cohen in the late 1990s, following some breakthrough experimental research into how homes ignite due to the effects of radiant heat. For more than 15 years, NFPA's wildfire safety recommendations have been shaped by this fire science and because of it, is able to provide actionable guidance for homeowners to help them prepare homes/home landscapes to resist wildfire.

been placed adjacent to the commercial center intermixed with neighborhood retail and services. That area would have probably housed the community center as well. And, the WUI would have followed Firewise principles with a zone of parkland with limited fuel for a wildfire.

Lost Creek has blocks that are too long by new urbanism standards, and the combination of distances and hills, makes it almost unwalkable.

Lost Creek is really not a neighborhood by new urbanism standards but a collection 19 different sub-neighborhoods with different deed restrictions.

## **Appendix**

### ***Descriptions of Zones Mentioned***

**Rural Residential (RR) Zone.** The RR Zone is the designation for low density residential uses on lots that are a least one acre. The RR Zone designation is appropriate in areas for which rural characteristics are desired or areas whose terrain or public service capacity require low density.

**Very Low Residential Zone.** The VLDR Zone is the designation for very low-density single-family residential uses on large lots that are at least 10,000 sq ft. The VLDR Zone designation is appropriate to a use on land with sloping terrain or environmental limitations.

**Low Density Residential (LDR) Zone,** The LDR Zone is the designation for low- density residential uses on medium sized lots that are at least 5,750 sq ft. The LDR Zone acts as a transition from lower intensity large lot single-family residential areas to medium density areas.

**Multi-Family Residence—Limited Density (MF-1)<sup>17</sup>** Multifamily Residence Limited Density district is intended for multifamily use with a maximum density of up to 17 units per acre, depending on unit size. An MF-1 district designation may be applied to a use in a residential neighborhood that contains a mixture of single family and multifamily uses or in an area for which limited density multifamily use is desired. An MF-1 district may be used as a transition between a single family and higher intensity uses.

**Neighborhood Commercial Zone.** The NC Zone is the designation for low intensity neighborhood serving retail and office uses located within walking distance to residential neighborhoods. There are two sub-zones; NC-Limited (NC-L) and NC-Open (NC-O). The NC Zone provides convenient access to daily services and neighborhood amenities for local residents. Residential uses are allowed in the NC-O Zone only. Site development standards and performance standards applicable to uses in an NC Zone are designed to ensure that the use is compatible and complementary in scale and appearance with a neighborhood environment.

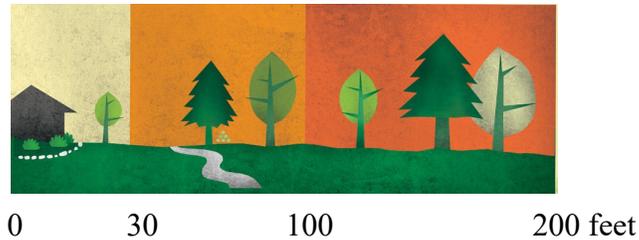
**Local Commercial (LC) Zone.** The LC Zone is the designation for medium intensity retail, office, medical, or service uses that serve the local community needs. There are two sub-zones; LC-Limited (LC-L) and LC-Open (LC-O) . An LC Zone provides areas of employment, shopping, and daily services within convenient walking, biking, or driving distance from nearby neighborhoods. Residential uses are allowed in the LC-O sub-zone only.

### ***Wildfire Danger***

Firewise also has a zoned approach between the natural and suburban zones. It is shown below:

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<sup>17</sup> MF-1 is an existing code, not part of CodeNEXT.



According to Firewise<sup>18</sup>, “Zone 1 encircles the structure and all its attachments (wooden decks, fences, and boardwalks) for at least 30 feet on all sides. Note: the 30-foot number comes from the very minimum distance, on flat ground, that a wood wall can be separated from the radiant heat of large flames without igniting. In this area:

- Plants should be carefully spaced, low-growing and free of resins, oils and waxes that burn easily.
- Mow the lawn regularly. Prune trees up six to ten feet from the ground.
- Space conifer trees 30 feet between crowns. Trim back trees that overhang the house.
- Create a ‘fire-free’ area within five feet of the home, using non-flammable landscaping materials and/or high-moisture-content annuals and perennials.
- Remove dead vegetation from under deck and within 10 feet of house.
- Consider fire-resistant material for patio furniture, swing sets, etc.
- Remove firewood stacks and propane tanks; they should not be located in this zone.
- Water plants, trees and mulch regularly.
- Consider xeriscaping if you are affected by water-use restrictions.

Zone 2 is 30 to 100 feet from the home, and plants in this zone should be low-growing, well irrigated and less flammable. In this area:

- Leave 30 feet between clusters of two to three trees, or 20 feet between individual trees.
- Encourage a mixture of deciduous and coniferous trees.
- Create ‘fuel breaks’, like driveways, gravel walkways and lawns.
- Prune trees up six to ten feet from the ground.

Zone 3 is 100 to 200 feet from the home and this area should be thinned, although less space is required than in Zone 2. NOTE: Because of other factors such as topography, the recommended distances to mitigate for radiant heat exposure actually extend between 100 to 200 feet from the home – on a site-specific basis. In this area:

- Remove smaller conifers that are growing between taller trees. Remove heavy accumulation of woody debris.
- Reduce the density of tall trees so canopies are not touching.”

This implies that some compromise must be reached with natural areas that are part of a wildlife refuge, like the Balcones Canyonlands Preserve.

<sup>18</sup> <http://www.firewise.org/wildfire-preparedness/be-firewise/home-and-landscape/defensible-space.aspx?sso=0>

Parenthetically, these Firewise principles may have some implication for higher density residences.

### ***Animal – Human & Human – Human Interaction***

Until recent times, deer were a constant nuisance in Lost Creek. But, even in the worst of times, deer harmed plants, not people or pets<sup>19</sup>. Coyotes and foxes are deadly to pets, and they roam freely through the neighborhood. Even big cat's tracks have been seen on the golf course. Most of the time, these events are treated by the neighborhood with benign neglect. You learn quickly, no pets out at night and no small children alone.

The people to people interaction between visitors and residents are more troubling. Many visitors to the Barton Creek Wilderness Area are not considerate of nature or the residents. As one resident wrote, "Besides the fire risk, we've had to tolerate nudity, drug use, under-age drinking, late-night parties, off-leash dogs relieving themselves on our lawns without regard of their owners, trash, and daily blocking of the fire hydrant, strangers on our street at all hours, etc etc etc. The day I sat at my desk and watched a woman drop her shorts and relieve herself on the street was my last straw."

These issues should be incorporated into the new zoning, and through increased funding to improve maintenance and policing.

### ***Analysis of Single Family Lot and House Sizes in Lost Creek***

Travis County Central Appraisal District<sup>20</sup> provided me with all the information necessary to analyze the single family lot and house sizes. The results of the preliminary analysis is shown on the next page. The distribution of living space is shown for each of the three zones permitted for Lost Creek – LDR, VLDR and RR. The numbers in ( ) indicate the number of houses in each zone that are less than 2,300 sq ft. The current LDR proposed zone would cover 65 homes. If all three zones were deployed, only 324 homes are less than 2,300 sq ft or 28% of the single family homes. To cover all of the houses currently on the ground would requires an upper limit on living area of about 5,000 sq ft for the LDR and 7,000 sq ft for the VLDR zones.

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19 Deer collisions with cars have happened. My wife and I both independently had deer run into our cars. And, one night when both our cars were left in the driveway, which they are rarely left out, some deer jumped on top of both cars doing severe damage.

20 Trisha Dangerfield, Records Coordinator, Travis Central Appraisal District

