

# City of Cedar Hill Comprehensive Plan 2008



## Chapter 1: BASELINE ANALYSIS



# TABLE OF CONTENTS

Introduction .....	1-1
Relationship to the Region .....	1-1
Social & Economic Characteristics Analysis .....	1-3
Population and Growth Trends .....	1-3
Housing Type .....	1-5
Age .....	1-8
Gender .....	1-9
Ethnicity.....	1-10
Educational Characteristics.....	1-12
Household Income .....	1-14
Physical Factors.....	1-16
Existing Land Use .....	1-16
Plate 1-1 Existing Land Use .....	1-17
Housing Conditions .....	1-23
Plate 1-2 Housing Conditions.....	1-25
Topography & the Escarpment .....	1-27
Plate 1-3 Topography and the Escarpment .....	1-29
Plate 1-4 Surface Geology .....	1-35
Existing Transportation System Plans .....	1-39
Loop 9 .....	1-39
Regional Rail.....	1-39
Plate 1-5 Existing Transportation System Plans .....	1-41



# INTRODUCTION

The City of Cedar Hill has a strong tradition of planning. A Land Use and Thoroughfare Plan was completed in 1986 and in 1999 the City adopted an updated Comprehensive Plan. City leaders and staff have effectively followed many of the guidelines and recommendations of these plans in the years since they were adopted.

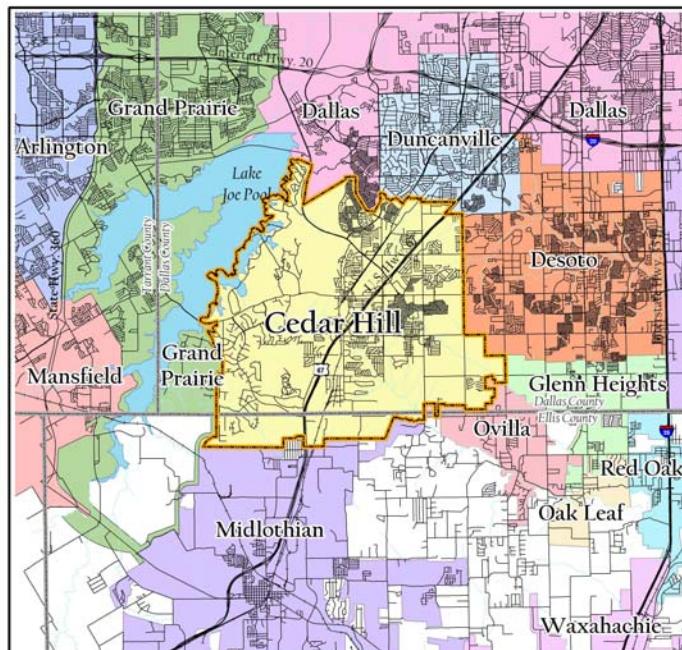
This revised Comprehensive Plan of 2008 will help the City address new issues facing the community, as well as revisit on-going planning activities, such as population growth and housing. The purpose of the *Baseline Analysis* chapter is to provide background information about Cedar Hill. This will enable all people involved in the planning process to have a clear understanding of the City and its characteristics.

## Relationship to the Region

Cedar Hill is located approximately thirty minutes south of downtown Dallas in the southwestern portion of Dallas County. Most of the City's land area is within Dallas County, with a relatively small portion of the City located in Ellis County. The map to the right shows the relationship of Cedar Hill to the surrounding region.

Cedar Hill is situated along, and bisected by U.S. Highway 67, which traverses the state of Texas from Presidio to Texarkana. The City is bordered by the cities of Dallas, Duncanville, and DeSoto to the north and east, and by the cities of Glen Heights, Ovilla, Midlothian and Grand Prairie to the south and west. Lake Joe Pool and Cedar Hill State Park also border Cedar Hill to the northwest.

Cedar Hill contains the highest elevation point in Dallas County, which is also the highest point between the Red River and the Texas Gulf coast. This geographical setting, in conjunction with an abundance of native tree cover and other significant natural features, makes Cedar Hill one of the most interesting and visually attractive communities within the Dallas-Fort Worth metro area.



The City of Dallas has a population of over one million and offers a variety of businesses, recreational, and cultural activities for the region. Cedar Hill's regional proximity to Dallas offers many favorable opportunities for business and residents of Cedar Hill, and should be considered a regional benefit to the community.

Cedar Hill's location near major highways (U.S. Highway 67 and Interstate 20) and its proximity to Dallas and major air transportation facilities (DFW International Airport, Executive Airport, Dallas Love Field, Logistics Hub and Terminal) are important regional factors contributing to the City's future development. Because of this convenience in access, many residents of Cedar Hill are able to work in the various surrounding areas, including Dallas, Arlington, Grand Prairie, and Fort Worth.

# SOCIAL & ECONOMIC CHARACTERISTICS ANALYSIS

## Population and Growth Trends

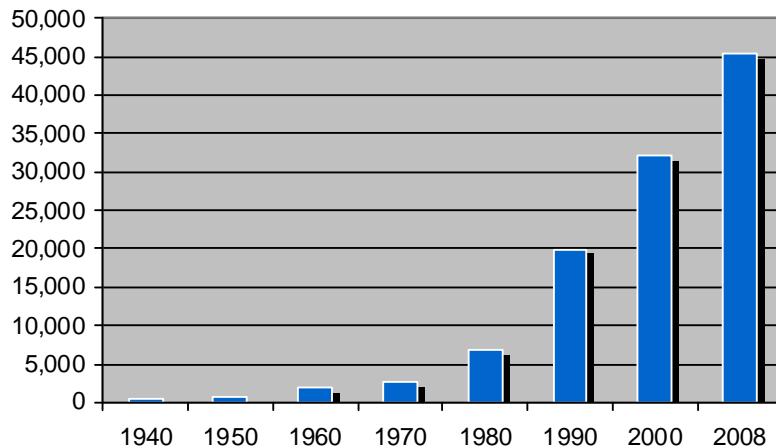
Cedar Hill has experienced steady population growth since 1970. The period of largest growth occurred between 1980 and 1990, with the population growing over 191 percent, as shown in the table to the right. The City's historical growth is graphically illustrated in *Figure 1-1*.

The 2000 Census reported Cedar Hill with a population of 32,093 residents. The North Central Texas Council of Governments (NCTCOG) estimates the 2008 population to be 44,900 persons. Through land use analysis and a housing count, Sefko Planning estimates Cedar Hill's population to be 45,369 for 2008.

Population Growth: 1970 – 2008 City of Cedar Hill, Texas			
Year	Population	Population Change	Percent Change
1970	2,810	—	—
1980	6,849	4,039	143.7%
1990	19,976	13,127	191.7%
2000	32,093	12,117	60.6%
2008 <sup>(1)</sup>	44,900	12,807	39.9%
2008 <sup>(2)</sup>	45,369	13,276	41.4%

Source: U.S. Census (Population 1970-2000)  
(1) NCTCOG Estimate  
(2) Sefko Planning Estimate (through September 2008)

Figure 1-1  
Population Growth: 1940 – 2008  
City of Cedar Hill, Texas



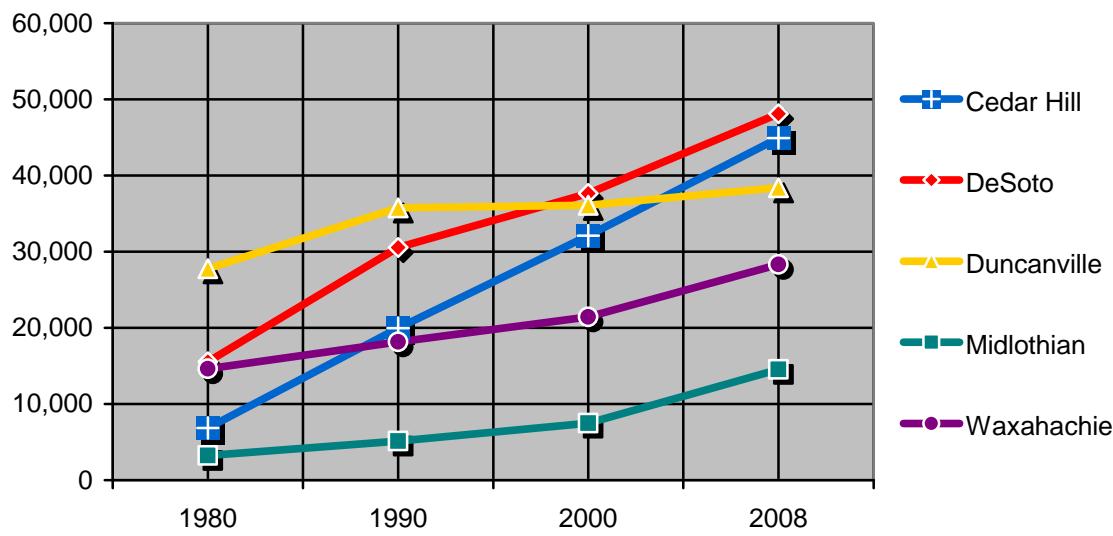
Source: U.S. Census; Sefko Planning Group – Freese and Nichols, Inc.

## Growth Comparison

While the growth of Cedar Hill is an important factor to the City's future, also significant is the growth or population change of surrounding cities. The cities of DeSoto, Duncanville, Midlothian, and Waxahachie have been included for this analysis. Although the City of Grand Prairie is included in other comparisons within this chapter, due to its much larger population, it has been omitted from comparison here. To provide consistency among the 2008 population estimates, the 2008 Cedar Hill population is based on the NCTCOG estimate.

Figure 1-2 illustrates the growth of Cedar Hill and each comparison city from 1980 to 2008. DeSoto currently has the largest population with an estimated 48,100 residents in 2008. Cedar Hill is the second largest city with approximately 44,900 residents. However, the overall growth rate of Cedar Hill is somewhat higher than DeSoto, as evidenced by a steeper population trend line. Midlothian and Waxahachie have also experienced steady population growth, although their total populations are noticeably less than those of DeSoto, Cedar Hill, and Duncanville. The population of Duncanville has changed the least over the given period, increasing by just over 10,000 residents in 27 years; this is because the City is predominantly built-out.

Figure 1-2  
Population Comparison  
Cedar Hill and Surrounding Cities



Note: 2008 Population is an estimate by the North Central Texas Council of Governments  
Source: U.S. Census; North Central Texas Council of Governments

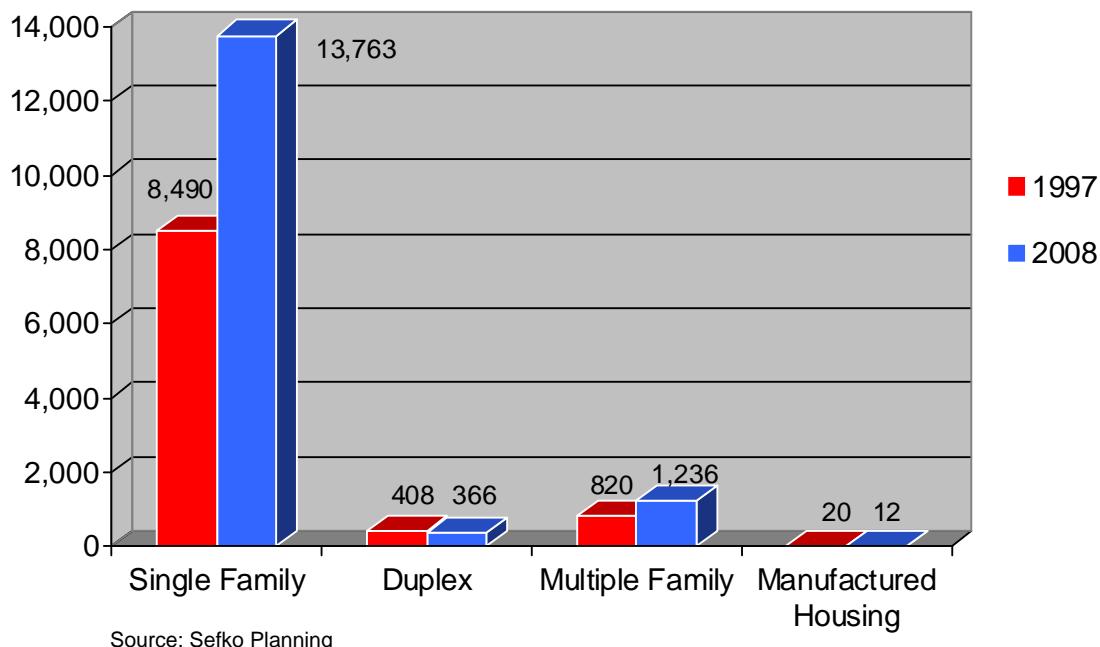
## Housing Type

A variety of housing types is important to communities because such variety is one of the key ways to provide living options that appeal to people in all stages of life. Analysis of the housing types within Cedar Hill will provide a basis on which to make recommendations regarding variety of housing, later within this *Comprehensive Plan*. Two sources of data can be analyzed for this purpose: data gathered during the land use phase of this and the previous Comprehensive Plan (see table on previous page), as well as the more specific data from the U.S. Census.

General Type	1997		2008		Percent Change
	Number	Percent	Number	Percent	
Single Family	8,490	87.2%	13,763	89.5%	2.3%
Duplex	408	4.2%	366	2.4%	-1.8%
Multiple-Family	820	8.4%	1,236	8.0%	0.4%
Manufactured Home	20	0.2%	12	0.1%	-0.1%
<b>Total</b>	<b>9,738</b>	<b>100%</b>	<b>15,377</b>	<b>100%</b>	—

Source: Sefko Planning

Figure 1-5  
Housing Type Comparison: 1997 & 2008  
City of Cedar Hill, Texas



As shown in *Figure 1-5* and the table on page 1-5, single family and multiple-family housing units increased in number between the years of 1997 and 2008, while multiple-family and manufactured housing units actually decreased in both number and percentage of all housing units.

A more specific break down of housing types is provided by the U.S. Census, as shown in following table. Overall, only minor changes in percentage occurred between 1990 and 2000, while the total number of housing units increased by over 4,000 units. Single family detached units accounted for the most substantial change, increasing from 81.9 percent of total housing units in 1990 to 85 percent in 2000. Less than 11 percent of the housing units in Cedar Hill are a type other than single family. Two multiple family categories experienced a percentage increase between 1990 and 2000, the Triplex or Quadplex category and the Multiple Family category with 20 or more units.

Housing Types(Units in Structure): 1990 & 2000 City of Cedar Hill, Texas						
General Type	Specific Description	1990		2000		Percent Change
		Number	Percent	Number	Percent	
<i>Single Family</i>	1-Unit Detached	5,768	81.9%	9,446	85.0%	3.1%
	1-Unit Attached	382	5.4%	463	4.2%	-1.2%
<i>Duplex</i>	2 Units	106	1.5%	106	1.0%	-0.5%
<i>Triplex or Quadplex</i>	3 or 4 Units	82	1.2%	151	1.4%	0.2%
<i>Multiple-Family</i>	5 to 9 Units	263	3.7%	273	2.5%	-1.2%
	10 to 19 Units	259	3.7%	267	2.4%	-1.3%
	20 or More Units	109	1.5%	370	3.3%	1.8%
<i>Manufactured Home</i>	Mobile Home	32	0.5%	37	0.3%	-0.2%
<i>Other</i>	Boat, RV, Van, Etc.	39	0.6%	—	—	-0.6%
<b>Total</b>		<b>7,040</b>	<b>100%</b>	<b>11,113</b>	<b>100%</b>	—

Source: U.S. Census

## Housing Type Comparison

A comparison of housing types for Cedar Hill and surrounding cities is provided below in the following table. As the table illustrates, Cedar Hill is most closely paralleled by the City of Duncanville. Both Cedar Hill and Duncanville have a large percentage of single family units, with all other types of housing accounting for less than 20 percent of the overall total. Conversely, Cedar Hill is most contrasted by the City of Grand Prairie, in which slightly over 33 percent of all housing units are a type other than single family.

Housing Type Comparison: 2000 Cedar Hill and Surrounding Cities						
Housing Type	Cedar Hill	DeSoto	Duncanville	Grand Prairie	Midlothian	Waxahachie
<i>Single Family</i>	89.2%	76.4%	83.6%	66.6%	72.3%	73.6%
<i>Duplex</i>	1.0%	1.3%	1.0%	1.3%	2.3%	4.8%
<i>Multiple Family</i>	9.5%	19.2%	15.2%	28.0%	15.1%	15.6%
<i>Manufactured Home</i>	0.3%	3.1%	0.2%	4.0%	10.2%	6.0%
Total	100%	100%	100%	100%	100%	100%

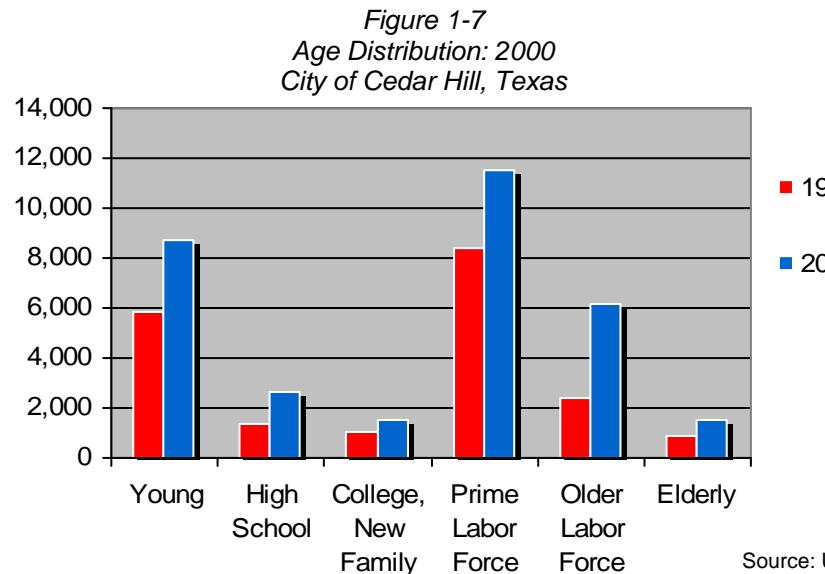
Source: U.S. Census  
Note: Manufactured Home category includes boat, RV, van, etc.

## Age

The age composition of a city's population can provide insight into the types of facilities and services that may need to be provided in the future. The age distribution of Cedar Hill's population in 1990 and 2000 is analyzed below. This analysis can ensure that the City is cognizant of the age distribution of its citizenry so that it can continue to meet the needs of significant local age groups.

Cedar Hill has experienced a moderate shift in the age distribution of its population since 1990. As the table below and *Figure 1-7* on the following page show, there has been a decline in the Prime Labor Force (ages 25 to 44 years) and a similar increase in the Older Labor Force (ages 45-64 years). This is an indication that the population of Cedar Hill is beginning to age. In fact, the other age categories which experienced percent decreases over the ten year period were the Young (ages 0 to 14 years) and College, New Family (ages 20 to 24 years). The median age of residents in Cedar Hill increased from 29.1 years in 1990 to 31.5 years in 2000.

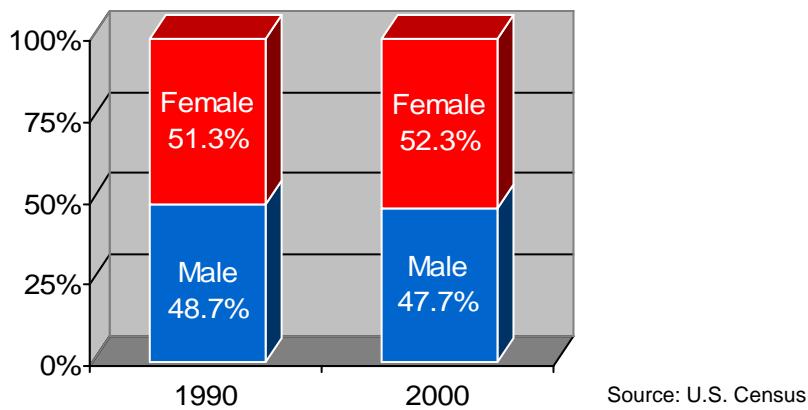
Age Group	1990		2000		Percent Change
	Number	Percent	Number	Percent	
Young (0-14 Years)	5,817	29.1%	8,717	27.1%	-2.0%
High School (15-19 Years)	1,353	6.8%	2,677	8.3%	1.5%
College, New Family (20-24 Years)	1,078	5.4%	1,542	4.8%	-0.6%
Prime Labor Force (25-44 Years)	8,437	42.2%	11,505	35.8%	-6.4%
Older Labor Force (45-64 Years)	2,402	12.0%	6,169	19.3%	7.3%
Elderly (65 and Older)	889	4.5%	1,483	4.7%	0.2%
<b>Total Population</b>	<b>19,976</b>	<b>100%</b>	<b>32,093</b>	<b>100%</b>	—
Median Age	29.1 Years		31.5 Years		—
Source: U.S. Census					



## Gender

In some instances, the gender distribution of a community's population can be heavily tilted toward one gender or the other. Military bases, such as Fort Hood, are a good example of when gender distribution can vary far from the norm. However, in Cedar Hill the gender distribution is very typical of most cities – slightly more females, but relatively close to an even distribution of males and females. *Figure 1-8* below, shows that the percentage of males and females each shifted by one percent from 1990 to 2000.

Figure 1-8  
Gender Distribution: 1990 & 2000  
City of Cedar Hill, Texas

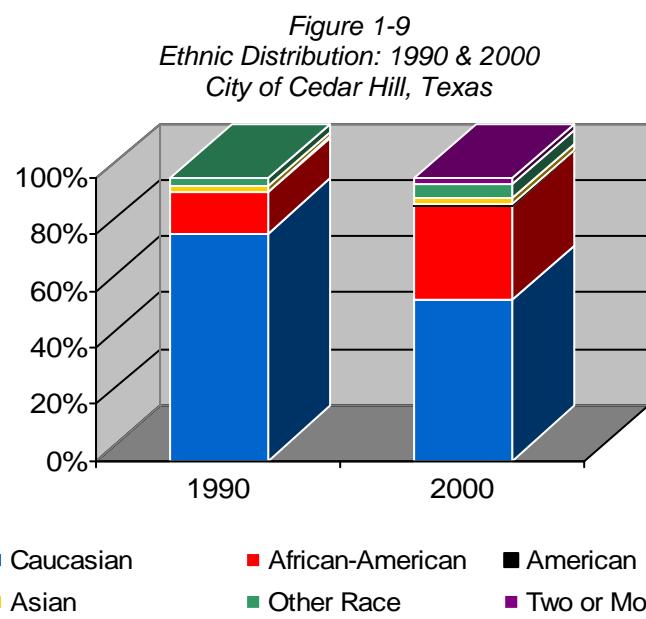


## Ethnicity

As have most Texas cities, Cedar Hill has become increasingly diverse from 1990 to 2000 and in the years since. With a total population of 19,976 in 1990, Caucasians accounted for more than 80 percent of Cedar Hill's residents. By the year 2000, the percentage of Caucasians decreased, while all other ethnic groups experienced increases. As shown in the following table and *Figure 1-9*, African-Americans accounted for the greatest percent change, growing from 14.2 percent of the population in 1990 to 33.6 percent of the population in 2000.

Ethnic Group	Ethnic Distribution: 1990 & 2000 City of Cedar Hill, Texas				Percent Change
	1990 Number	1990 Percent	2000 Number	2000 Percent	
Caucasian	16,077	80.5%	18,186	56.7%	<b>-23.8%</b>
African-American	2,840	14.2%	10,788	33.6%	19.4%
American Indian, Eskimo, or Aleut	73	0.4%	160	0.5%	0.1%
Asian or Pacific Islander	357	1.8%	652	2.0%	0.2%
Other Race	629	3.1%	1,564	4.9%	1.8%
Two or More Races <sup>(1)</sup>	—	—	743	2.3%	—
Hispanic or Latino <sup>(2)</sup>	1,612	8.1%	3,822	11.9%	3.8%
<b>Total Population</b>	<b>19,976</b>		<b>32,093</b>		—

Source: U.S. Census  
 (1) The 1990 Census did not include the category "Two or More Races"  
 (2) Hispanic or Latino can be of any race, which results in a total percentage greater than 100.



Source: U.S. Census

Hispanic or Latino origin is not included in *Figure 1-9* due to its inclusion in every race or ethnicity, which would result in total percentages greater than 100. However, the U.S. Census does include data for Hispanic or Latino persons of any race. In 1990, Hispanic or Latino residents of any race accounted for 8.1 percent of the population (1,612 persons). By 2000, Hispanic or Latinos of any race increased to 11.9 percent of the total population or 3,822 persons.

## Ethnic Distribution Comparison

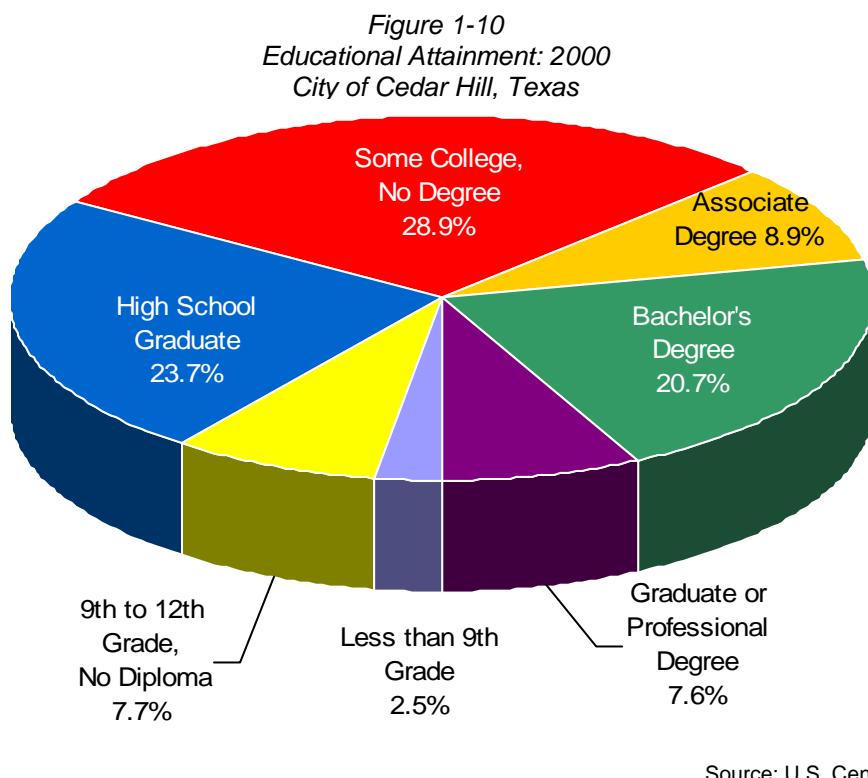
The table below illustrates Cedar Hill's ethnic distribution, compared to the surrounding cities. The highest percentage of each ethnic group is shown in bold. Cedar Hill does not have the highest or lowest percentage of any ethnic group.

Comparison of Ethnic Distribution: 2000 Cedar Hill and Surrounding Cities						
Ethnic Group	Cedar Hill	DeSoto	Duncanville	Grand Prairie	Midlothian	Waxahachie
Caucasian	56.7%	48.8%	63.9%	62.0%	<b>90.5%</b>	70.4%
African-American	33.6%	<b>45.5%</b>	24.8%	13.5%	2.9%	17.1%
American Indian <sup>(1)</sup>	0.5%	0.3%	0.3%	<b>0.8%</b>	0.5%	0.8%
Asian <sup>(2)</sup>	2.0%	1.3%	2.1%	<b>4.5%</b>	0.5%	0.4%
Other Race	4.9%	2.6%	6.8%	<b>15.9%</b>	3.9%	9.3%
Two or More Races	2.3%	1.4%	2.1%	<b>3.3%</b>	1.7%	2.0%
<b>Total Population</b>	<b>32,093</b>	<b>37,646</b>	<b>36,081</b>	<b>127,427</b>	<b>7,480</b>	<b>21,426</b>

Source: U.S. Census  
(1) Includes Alaskan Natives      (2) Includes Pacific Islanders  
Note: Hispanic Origin has not been shown due to its inclusion in each race/ethnicity.

## Educational Characteristics

The educational level of a population generally indicates the skill and abilities of the residents of the community. According to the 2000 Census, almost 90 percent (89.8 percent) of Cedar Hill's population 25 years and older has attained at least a high school education. In fact, slightly over 66 percent have at least some college education. As shown in *Figure 1-10*, more than 28 percent have a Bachelor's Degree or higher. The educational attainment of the population is important because it ultimately affects the industry, employment, income, and even tax base of the community; all factors which are vital to the success and sustainability of the City.



## Educational Comparison

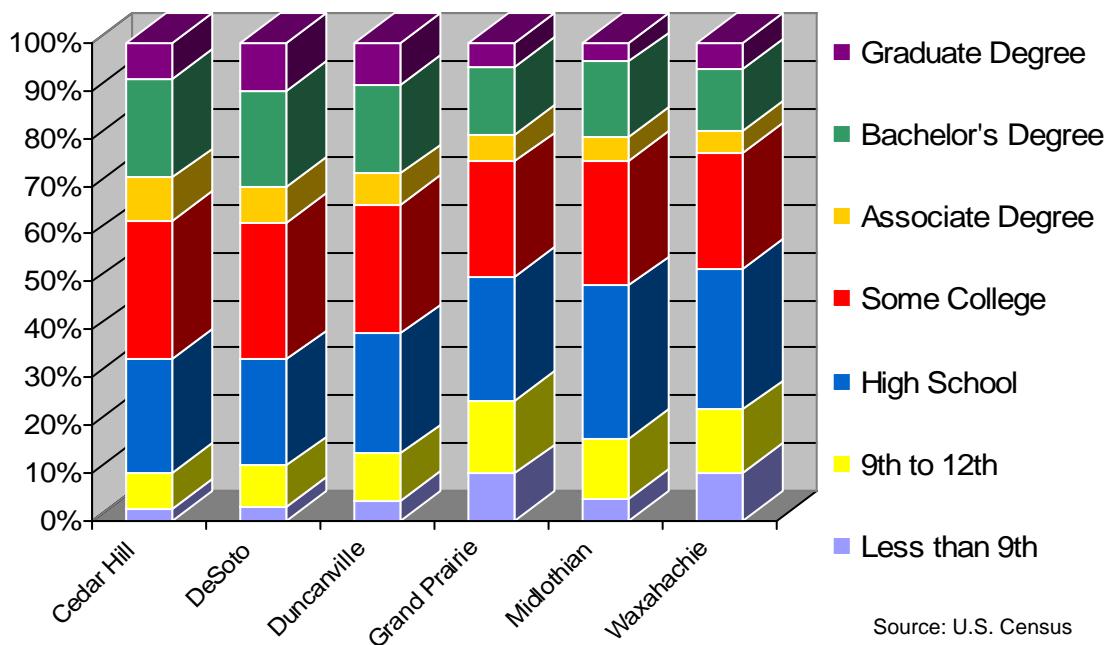
Cedar Hill is a component of a larger regional context, for this reason it is important to also examine Cedar Hill's educational attainment in relation to that of surrounding cities. The table and *Figure 1-11* on the following page provide a comparison of Cedar Hill's educational statistics to those of DeSoto, Duncanville, Grand Prairie, Midlothian, and Waxahachie. The highest percentage for each category is shown in bold. An analysis of the comparison is very favorable for the City of Cedar Hill.

Cedar Hill's population has the lowest percentage of people with less than a 9<sup>th</sup> grade education, as well as those with 9<sup>th</sup> to 12<sup>th</sup> grade, but no diploma. Correspondingly, Cedar Hill also has the highest percentage of residents in each of the following categories: Some College, No Degree, Associate Degree, and Bachelor's Degree.

Comparison of Educational Attainment: 2000 City of Cedar Hill and Surrounding Cities						
Educational Attainment	Cedar Hill	DeSoto	Duncanville	Grand Prairie	Midlothian	Waxahachie
Less than 9 <sup>th</sup> Grade	2.5%	3.0%	4.1%	9.9%	4.6%	<b>10.2%</b>
9 <sup>th</sup> to 12 <sup>th</sup> Grade, No Diploma	7.7%	8.6%	10.0%	<b>15.2%</b>	12.7%	13.1%
High School Graduate	23.7%	22.1%	25.1%	26.0%	<b>31.9%</b>	29.4%
Some College, No Degree	<b>28.9%</b>	28.8%	26.9%	24.0%	26.0%	24.2%
Associate Degree	<b>8.9%</b>	7.4%	6.5%	5.6%	5.1%	4.8%
Bachelor's Degree	<b>20.7%</b>	20.2%	18.6%	14.3%	15.7%	12.9%
Graduate or Professional Degree	7.6%	<b>10.0%</b>	8.9%	5.0%	4.0%	5.4%
<b>Total Population (25 Years and Over)</b>	<b>19,362</b>	<b>24,327</b>	<b>22,880</b>	<b>75,540</b>	<b>4,676</b>	<b>12,979</b>

Source: U.S. Census

Figure 1-11  
Educational Attainment Comparison: 2000  
Cedar Hill and Surrounding Cities



## Household Income

Income levels are interesting to note for several reasons. First, if there is a great fluctuation in household income levels from one Census year to another, it may indicate that employment opportunities are increasing or decreasing. Second, a population of diversified income levels is more indicative of a full-life cycle community – one that has opportunities for all age groups and employment levels. Third, income is an indicator for the retail market – higher income levels generally mean more disposable income and more retail possibilities; which in turn results in more expensive housing stock and a higher tax base for the community.

Income Level	1989		1999		Percent Change
	Number	Percent	Number	Percent	
Less than \$10,000	323	4.9%	286	2.7%	-2.2%
\$10,000 to \$14,999	258	3.9%	304	2.8%	-1.1%
\$15,000 to \$24,999	797	12.1%	679	6.3%	-5.8%
\$25,000 to \$34,999	1,187	18.1%	1,031	9.6%	-8.5%
\$35,000 to \$49,999	1,585	24.1%	1,832	17.1%	-7.0%
\$50,000 to \$74,999	1,765	26.8%	2,909	27.1%	0.3%
\$75,000 to \$99,999	403	6.1%	1,952	18.2%	12.1%
\$100,000 to \$149,999	189	2.9%	1,266	11.8%	8.9%
\$150,000 to \$199,999	74	1.1%	274	2.6%	3.4%
\$200,000 or More			208	1.9%	
Total	6,581	100%	10,741	100%	—
<b>Median Household Income</b>	<b>\$41,457</b>		<b>\$60,136</b>		—

Source: U.S. Census  
 Note: The 1990 Census did not include the category *\$200,000 or More*, the highest category was *\$150,000 or More*.

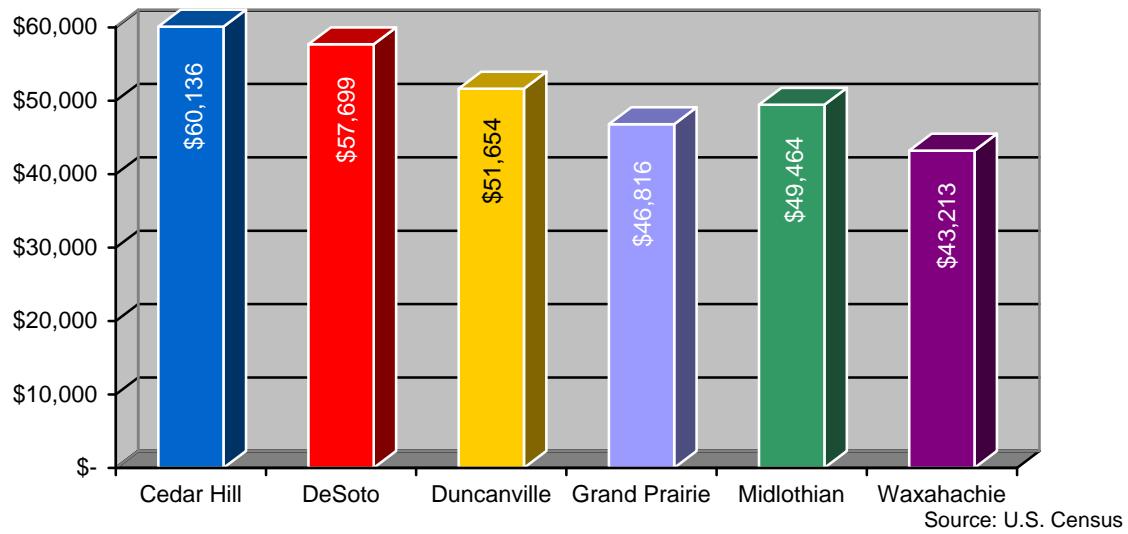
The table above contains income information for Cedar Hill for 1989 and 1999, which correspond to the Census years 1990 and 2000, respectively. As shown, all lower income categories experienced percentage decreases, while all higher income categories (\$50,000 and above) experienced percentage increases. The largest percentage and numerical increase occurred within the \$75,000 to \$99,999 category. The median household income increased by over \$18,000 from 1990 to 2000, rising from \$41,457 to \$60,136.

## Household Income Comparison

Due to the fact that employment and retail are often very regional in nature, particularly in this Dallas-Fort Worth metro area, it is important to consider median household income for Cedar Hill in comparison to the surrounding cities. As *Figure 1-12* on the following page illustrates, Cedar Hill has the highest median household income of the

surrounding cities. The median household income for Cedar Hill is just over \$60,000. DeSoto has the second highest median household income, at approximately \$2,400 less than Cedar Hill. Duncanville and Midlothian represent the mid-range of median household incomes within the comparison group, at \$51,654 and \$49,464, respectively. Grand Prairie and Waxahachie had the lowest median household incomes of the surrounding cities.

Figure 1-12  
Comparison of Median Household Income: 1999  
Cedar Hill and Surrounding Cities



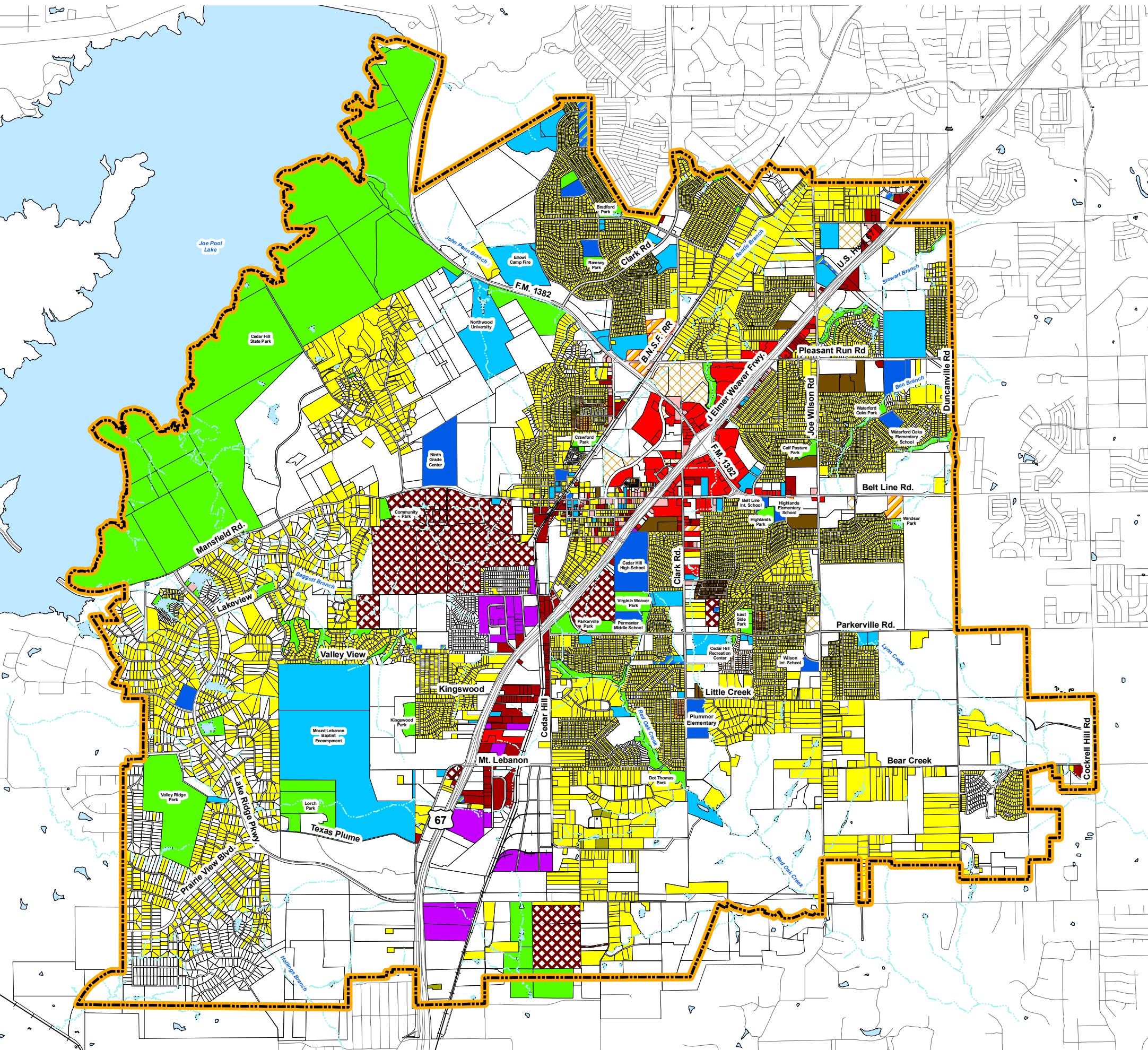
# PHYSICAL FACTORS

## Existing Land Use

Existing land use characteristics and related trends over time can be very telling about the evolution of a community. The table below shows the City's existing land uses for the years 1997 and 2007. The most significant change over the ten year period was the increase in single family residential, growing from slightly less than 14 percent in 1997 to over 24 percent in 2007. Land used for streets and rights-of-way also experienced considerable growth, increasing from just over five percent in 1997 to almost ten percent in 2007. These major increases in land use, combined with the smaller fluctuations, considerably reduced the remaining vacant or undeveloped land within Cedar Hill. While approximately 40 percent of Cedar Hill was developed in 1997, slightly over 60 percent of the City is now developed. Plate 1-1 on the following page represents Cedar Hill's Existing Land Use for 2007. Note that the Vacant land use includes Agricultural and Undeveloped land.

Land Use Distribution: 1997 & 2007 City of Cedar Hill, Texas					
Land Use	1997		2007		Percent Change
	Acres	Percent	Acres	Percent	
Single Family	3,212	14.02%	5,688	24.82%	10.83%
Two Family	42	0.18%	44	0.19%	0.01%
Multiple Family	43	0.19%	92	0.40%	0.21%
Residential Retirement <sup>(1)</sup>	—	—	52	0.23%	—
Manufactured Housing	29	0.13%	17	0.07%	-0.06%
Public / Semi-Public <sup>(2)</sup>	1,451	6.33%	1,267	5.53%	-0.63%
Utilities <sup>(3)</sup>			37	0.16%	
Parks & Open Space	2,356	10.28%	2,683	11.71%	1.45%
Retail	78	0.34%	313	1.4%	1.06%
Commercial	633	2.76%	239	1.04%	1.18%
Broadcast Towers <sup>(4)</sup>			664	2.90%	
Office	28	0.12%	58	0.25%	0.13%
Industrial	68	0.30%	223	0.97%	0.67%
Under Construction	—	—	144	0.62%	—
Streets & Right-of-Way	1,212	5.29%	2,243	9.80%	4.52%
Agriculture <sup>(5)</sup>	13,762	60.06%	594	2.59%	-20.20%
Vacant / Undeveloped			8,556	37.34%	
<b>Total</b>	<b>22,914</b>	<b>100%</b>	<b>22,914</b>	<b>100%</b>	—

(1) Residential Retirement was not included as a category in 1997  
 (2) The decrease in Public/Semi-Public acres from 1997 to 2007 is due to a reclassification of various parcels.  
 (3) Utilities were included in Public/Semi-Public in 1997  
 (4) Broadcast Towers were included in Commercial in 1997  
 (5) Agriculture land use was included in Vacant / Undeveloped in 1997



## 2007 Existing Land Use

**Existing Land Use**

- Single-Family
- Two-Family
- Multi-Family
- Residential Retirement Facility
- Manufactured Home
- Public\Semi-Public
- Public-Schools
- Public-Fire Stations
- Utilities
- Parks & Open Space
- Office
- Retail
- Commercial
- Broadcast Towers/Communications
- Industrial
- Under Construction
- Vacant/Agricultural
- Lakes
- Cedar Hill City Limits





The following definitions, presented in the table below, are provided to clarify the various land use types shown on the *Existing Land Use Map* and discussed herein.

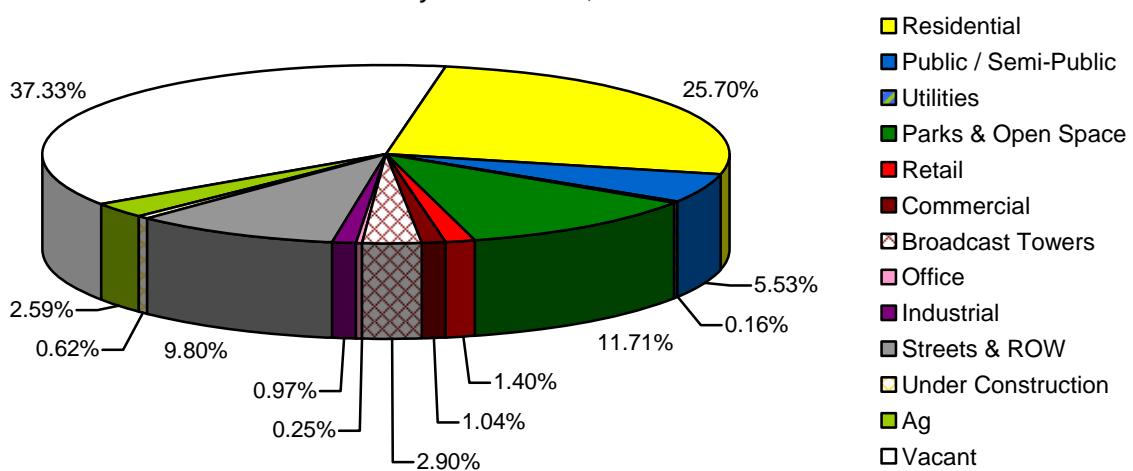
Existing Land Use Categories City of Cedar Hill, Texas		
Land Use	Color	Definition / Examples
Single Family	Yellow	
Two Family (Duplex)	Orange	
Multiple Family	Brown	Residential land uses.
Residential Retirement	Light Orange	
Manufactured Housing	Dark Green	
Public / Semi-Public	Blue	Uses which are educational, governmental, or institutional in nature. Includes all Cedar Hill ISD properties, fire stations, and City administrations facilities.
Utilities	Green	Includes utility easements, water towers / tanks, and various utility lines.
Parks & Open Space	Dark Green	Park facilities and greenbelts.
Retail	Red	Establishments which primarily sale goods, including grocery stores, clothing stores, etc.
Commercial	Dark Red	Uses which primarily provide a service, including auto repair, welding, mini-storage facilities, etc.
Broadcast Towers	Light Gray	Television / radio communication towers.
Office	Pink	Professional or corporate offices, including doctor/dentist, lawyer, real estate, and insurance.
Industrial	Purple	Manufacturing and assembling.
Under Construction	Light Orange	Sites currently under development.
Streets & Right-of-Way		Road, sidewalk, and easements.
Agriculture	Light Green	Agricultural land uses, including farms, ranches, and crop production.
Vacant / Undeveloped		Natural, undisturbed land.

The City of Cedar Hill is comprised of 22,914 acres, of which the greatest land uses are Single Family residential, Parks & Open Space, and Streets & Right-of-Way, respectively. Over 8,500 acres within the City limits of Cedar Hill remain vacant or undeveloped. Also noteworthy is the amount of land dedicated to retail uses – over 300 acres or almost one and a half percent of the City's total land area. A more detailed analysis of the 2007 existing land use characteristics is presented in the table and Figure 1-13 on the following page. These characteristics are supported by the 2007 Existing Land Use Map, Plate 1-1, on the previous page.

Existing Land Use: 2007 City of Cedar Hill, Texas			
Land Use	Acres	Percent of Total Land	Acres per 100 Persons
Single Family	5,688	24.82%	12.7
Two Family	44	0.19%	0.10
Multiple Family	92	0.40%	0.21
Residential Retirement	52	0.23%	0.12
Manufactured Housing	17	0.07%	0.04
Public / Semi-Public	1,267	5.53%	2.83
Utilities	37	0.16%	0.08
Parks & Open Space	2,683	11.71%	5.99
Retail	313	1.4%	0.70
Commercial	239	1.04%	0.53
Broadcast Towers	664	2.90%	1.48
Office	58	0.25%	0.13
Industrial	223	0.97%	0.50
Streets & Right-of-Way	2,243	9.80%	5.01
Under Construction	144	0.62%	0.32
Agricultural	594	2.59%	1.33
Vacant / Undeveloped	8,556	37.34%	19.10
<b>Total</b>	<b>22,914</b>	<b>100%</b>	<b>51.17</b>

Source: Sefko Planning  
 Note: Acres per 100 persons based on a 2007 population of 44,778

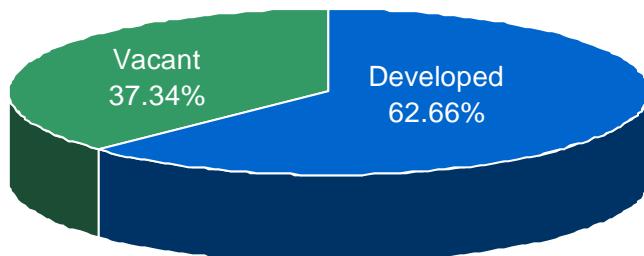
Figure 1-13  
 Existing Land Use: 2007  
 City of Cedar Hill, Texas



Source: Sefko Planning

The amount of vacant or undeveloped land within a City is also an important consideration, as it is a key element in predicting and planning for future growth. (Further analysis of land use and population growth will be discussed in Chapter 4.) *Figure 1-14* below graphically illustrates the amount of vacant land (8,556 acres) compared to developed land (14,358 acres) currently within Cedar Hill.

*Figure 1-14*  
Existing Land Use of Developed Acreage: 2007  
City of Cedar Hill, Texas



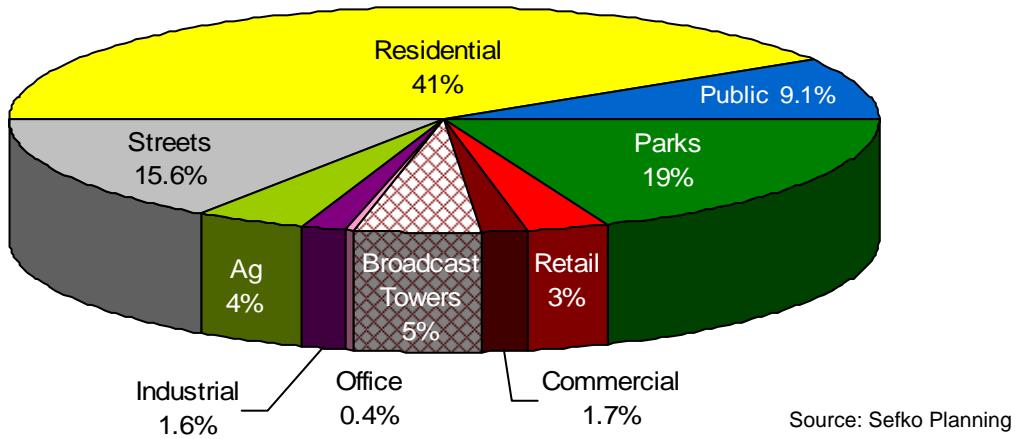
Source: Sefko Planning

However, an examination of the current developed land can provide a more accurate summary of the City's existing conditions. The table to the right, and *Figure 1-15* on the following page, illustrate the existing uses of the 14,358 acres of developed land. Residential uses, as a whole, are the greatest use, accounting for over 40 percent of all developed land within Cedar Hill. It is important to note that Commercial, Industrial, and Office, land uses commonly associated as employment centers, account for less than four percent of the developed land in the City.

Existing Developed Land: 2007 City of Cedar Hill, Texas		
Land Use	Acres	Percent of Developed Land
Single Family	5,688	39.61%
Two Family	44	0.31%
Multiple Family	92	0.64%
Residential Retirement	52	0.36%
Manufactured Housing	17	0.12%
Residential Sub-Total	5,893	41.04%
Public / Semi-Public	1,267	8.82%
Utilities	37	0.27%
Parks & Open Space	2,683	18.70%
Retail	313	2.18%
Commercial	239	1.66%
Broadcast Towers	664	4.62%
Office	58	0.40%
Industrial	223	1.55%
Streets & Right-of-Way	2,243	15.62%
Under Construction	144	1.00%
Agricultural	594	4.14%
<b>Total Developed Land</b>	<b>14,358</b>	<b>100%</b>

Source: Sefko Planning

Figure 1-15  
Existing Land Use of Developed Acreage: 2007  
City of Cedar Hill, Texas



# Housing Conditions

A field survey was conducted in 2007 to evaluate the condition of Cedar Hill's housing stock. Rather than rating each individual unit, an overall assessment was made for each residential neighborhood within the City. A rating classification was assigned to each neighborhood based the following scale:

## *Sound Area*

Structures in excellent condition; new or well maintained homes not in need of repair.

## *Minor Repair Area*

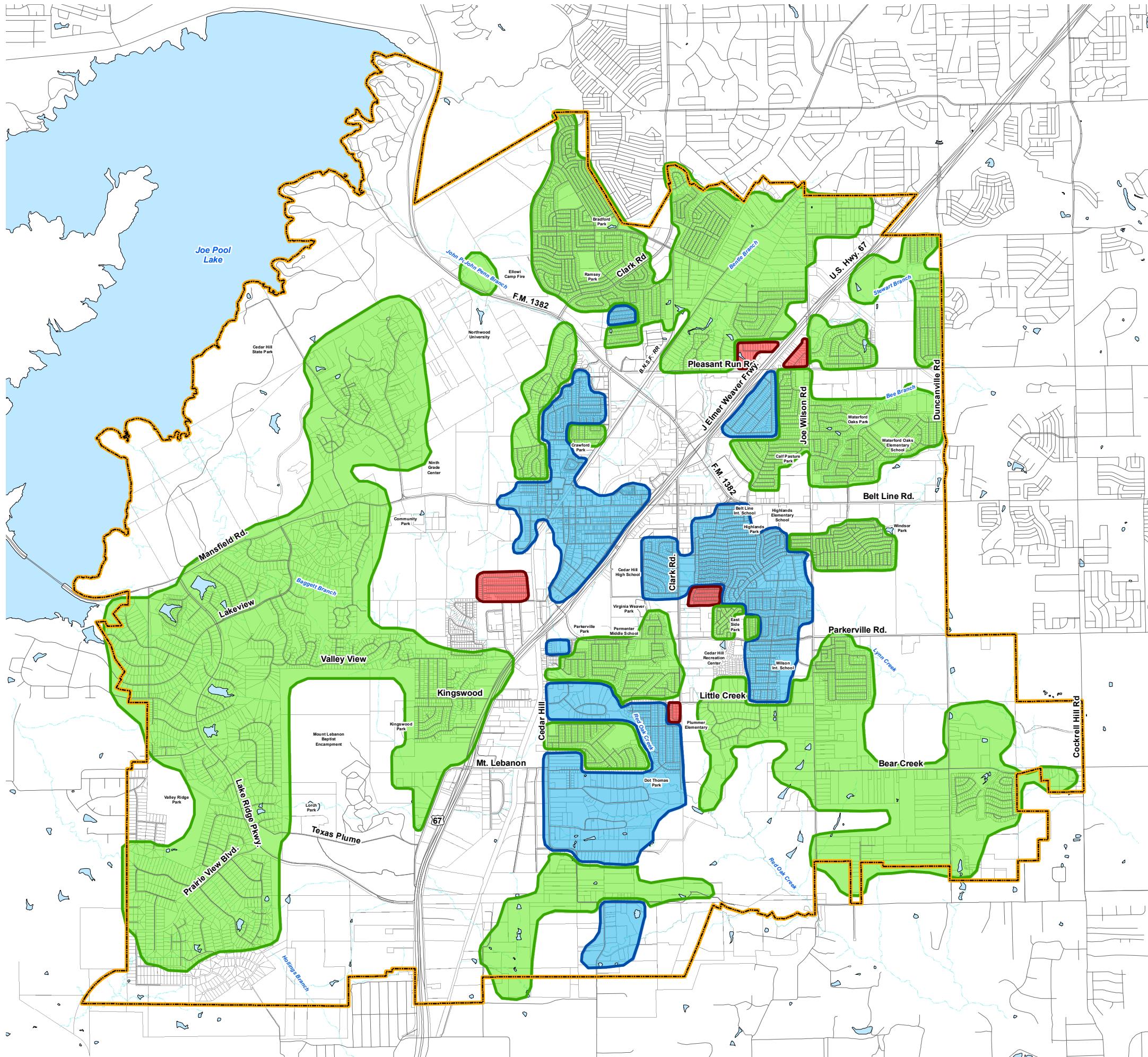
Structures generally in good condition, with some needing minor repairs. Minor repairs include those which can be done by the homeowner with little or no assistance, such as painting, cleaning, yard maintenance, etc.

## *Minor with Some Major Repair Area*

Structures generally in moderate condition with minor repairs needed; some structures needing major repairs and those considered dilapidated. Major repairs include roofing, structural work, and other such tasks which cannot be done by the homeowner.

Results from the assessment are shown on Plate 1-2 on the following page. Analysis of the findings indicate that the majority of the housing within Cedar Hill is in sound condition. There are several *Minor Repair Areas*, located in the central portion of the City. While these areas can be easily improved now, if not addressed, they could deteriorate further and require more extensive repairs. Currently, only two small neighborhood concentrations were classified as *Minor with Some Major Repair Areas*. Additional discussion and recommendations of housing will be provided in Chapter 7 of this *Comprehensive Plan*.





**CEDAR HILL**  
**Housing  
Conditions**

- Sound Area
- Minor Repair Area
- Minor with some Major Repair Area

Plate 1-2



## Topography & the Escarpment

The presence of the Balcones Escarpment and unique topography are undeniably two of the most defining physical characteristics of Cedar Hill.

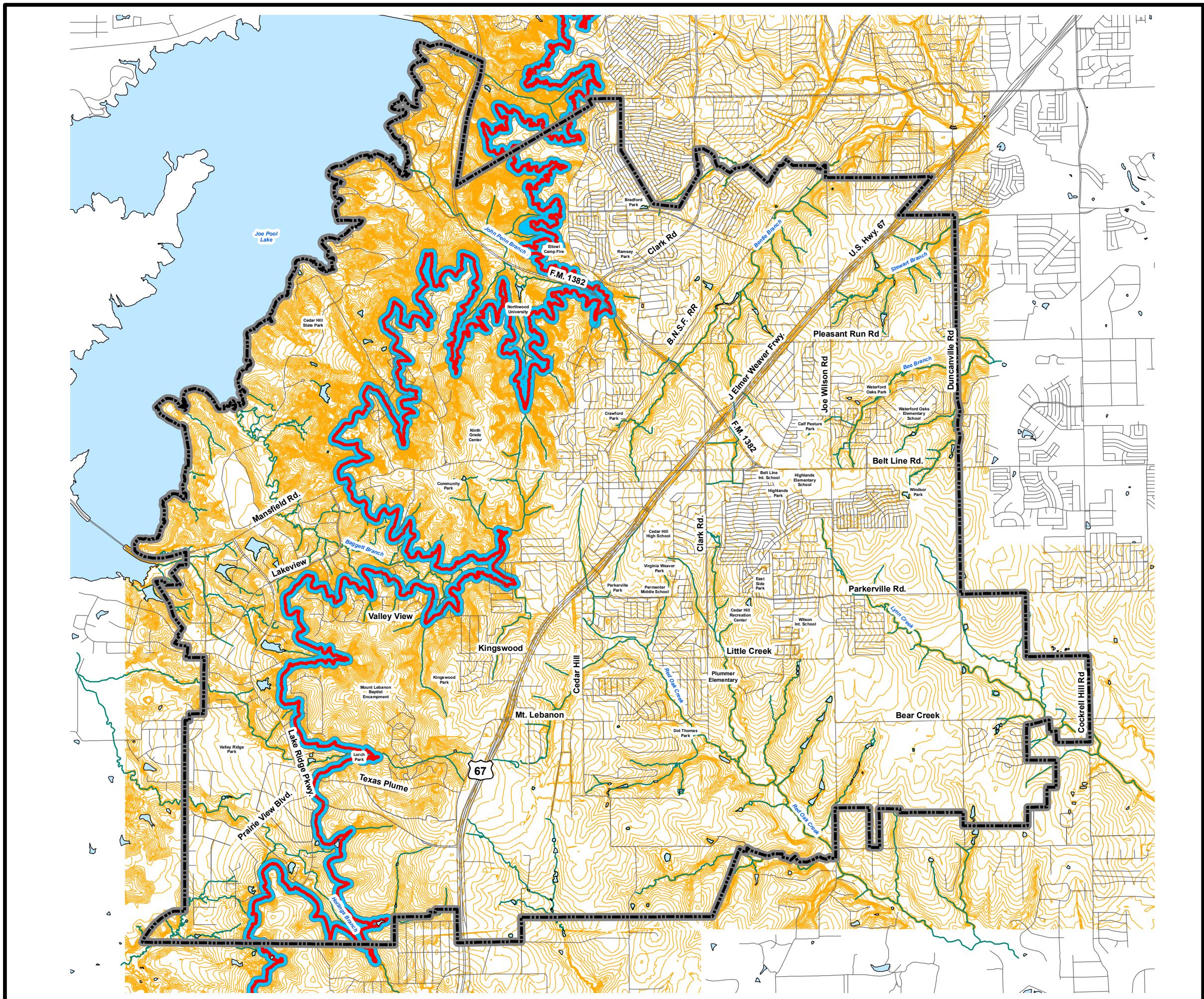
Rising to almost 880 feet above mean sea level at its highest location, Cedar Hill is considered to be the highest point between the Red River and the Gulf Coast. The relationship between the topography of Cedar Hill and the Escarpment is shown on Plate 1-3, located on the following page.

As can be seen on Plate 1-3, one of the most distinctive natural features of Cedar Hill is the presence of the Balcones (locally known as White Rock) Escarpment. The Escarpment traverses north to south through the City. The edge of this Escarpment area has an abundance of natural vegetation including several species of Oak Trees, as well as Juniper, Cedar, Elm, and other native trees. The Escarpment is typically a relatively steep cliff that has formed along the Balcones Fault line, creating a plateau on top and a general slope down toward Lake Joe Pool to the west. The elevations along the top of the Escarpment are approximately 750 feet above sea level, while elevations at the Lake's edge are approximately 460 feet above sea level, representing a difference of approximately 290 feet.



While the Escarpment is particularly prominent through Cedar Hill, it actually extends across much of Texas, reaching from the Red River through Central Texas and down to Del Rio. Due to its ecological sensitivity and dynamic structural integrity, building within the Escarpment area in Cedar Hill is regulated by the Escarpment Development Regulations.





# Topography and the Escarpment

- Contours @ 5 Feet
-  Cedar Hill City Limits
- Escarpment Contact Line
-  Escarpment Zone
-  Creeks

## Plate 1-3





## Surface Geology

The geology of Cedar Hill gives the City much of its character. The City is located on the surface outcrops of two primary geologic formations – the Austin Chalk and the Eagle Ford Shale. A map depicting the Surface Geology of Cedar Hill is shown on Plate 1-4. The majority of the land area within Cedar Hill rests upon the more resistant Austin Chalk; the softer Eagle Ford Shale lies below the western portion of the City. The contact between these two formations – the harder chalk above and the softer shale below – forms the Balcones Escarpment. There are also small amounts of Quaternary Alluvium and Fluvial Terrace Deposits. Quaternary Alluvium Deposits are mainly clay, sand, and gravel, and are found in the floodplains. Fluvial Terrace Deposits are composed of alluvium, and formed as the Trinity River changed course and the terraces were cut into the terrain. To the southeast, the soil is primarily Ozan Formation. Ozan is usually sandy or chalky, and was deposited in a still, deep-marine setting.

### AUSTIN CHALK

The Austin Chalk is a marine-deposited, sedimentary formation of the Upper Cretaceous geologic age. It consists of chalk and marl, with varying clay content. It is gray, or occasionally blue, in its un-weathered state, and changes to white, tan, or yellow during the weathering process. Native trees on the Austin Chalk in this area include the Mexican Juniper, known locally as the Cedar Tree.

The Austin Chalk formation dips east or east/southeast about 50 to 100 feet per mile. Numerous faults and fractures are common in the Austin Chalk. These fractures are the result of Horst and Graben block faulting during long-past tectonic movements, primarily the Ouachita uplift. The larger faults or fault systems travel parallel or perpendicular to the north/northeast to south/southwest alignment of the Ouachita fold belt in the Dallas County area. Fractures in the Escarpment zone are often caused by loss of support from the eroding shale beneath.

The Austin Chalk is a firm foundation material, and generally provides the most desirable support for foundations in the area. Allowable bearing pressures range from 40,000 to over 80,000 pounds per square foot in the un-weathered chalk, to about half these values in the intact, weathered rock. Weathering of the Austin Chalk produces tan, chalky, lean clay. Further weathering results in black or dark brown, highly plastic clay. These clay soils are generally shallow, ranging in depth from one to three feet in the majority of Cedar Hill. The few locations with deeper soils are most often the result of alluvial or terrace soil deposition along streams and on the slopes of the Escarpment, or larger-displacement faulting. Slab-on-grade residential foundations are quite common on the Austin Chalk in this area, and have generally performed well when they are properly designed and constructed.

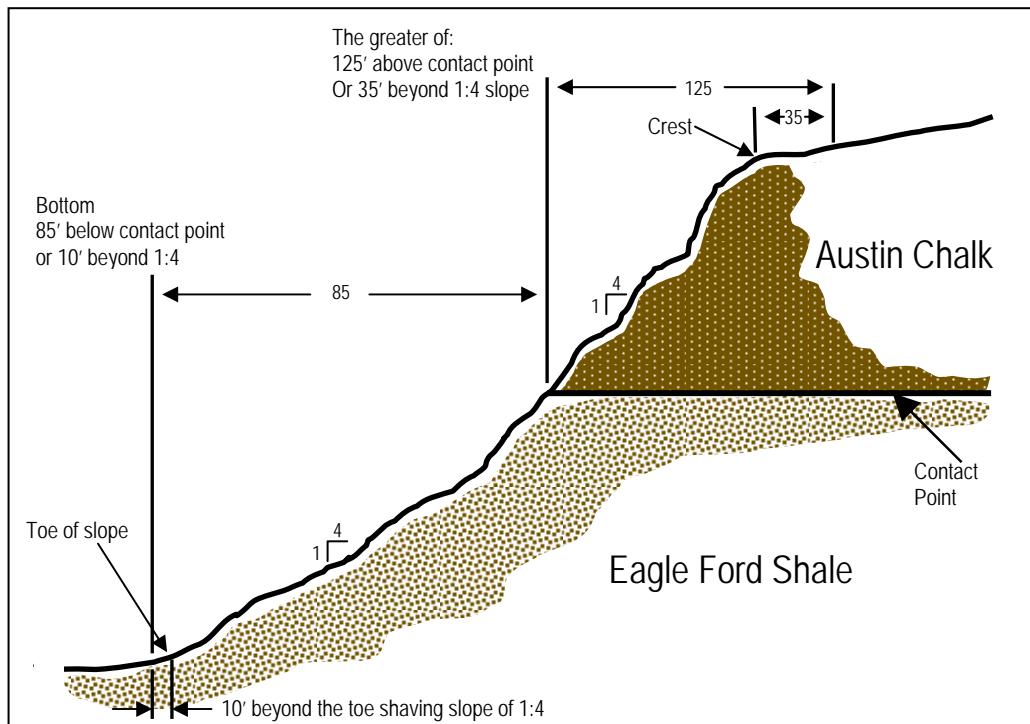


Illustration of the Contact Point in the Escarpment Area

## EAGLE FORD SHALE

The Eagle Ford Shale is also a marine deposit of the Upper Cretaceous age, but it contains much more clay than the Austin Chalk, especially highly active montmorillonite, and is better classified as a compaction clay-shale. It is generally dark to medium gray in its un-weathered state, and contains occasional beds of bentonite, flaggy limestone, siltstone, and mudstone. The Arcadia Park member, the member exposed in western Cedar Hill, contains fewer of these beds than the rest of the formation, but a higher percentage of the most expansive clay soils. At the point of contact with the Austin Chalk, a darker gray stratum, called the Fish Bed Conglomerate, is often encountered.

Portions of the Eagle Ford Shale formation are found in many other Dallas-Fort Worth area communities including Arlington, Irving, Coppell, and Midlothian. In fact, most of Las Colinas in Irving is constructed upon the Eagle Ford Shale formation. The Eagle Ford Shale is considered an aquiclude, such that perched groundwater can be found in the subsurface at or near the contact with the Austin Chalk, or at the interface of the shale and an overlying alluvial or terrace deposit. Shallow wells in these perched water tables have been common in the past. Springs are also common in the hillsides of the Escarpment. The greatest problem with respect to the construction on the Eagle Ford Shale is its tendency to shrink and swell.<sup>1</sup> Native trees often observed on the Eagle Ford Shale include Mesquite trees.

The soil just below the contact between the Austin Chalk and Eagle Ford Shale, in areas

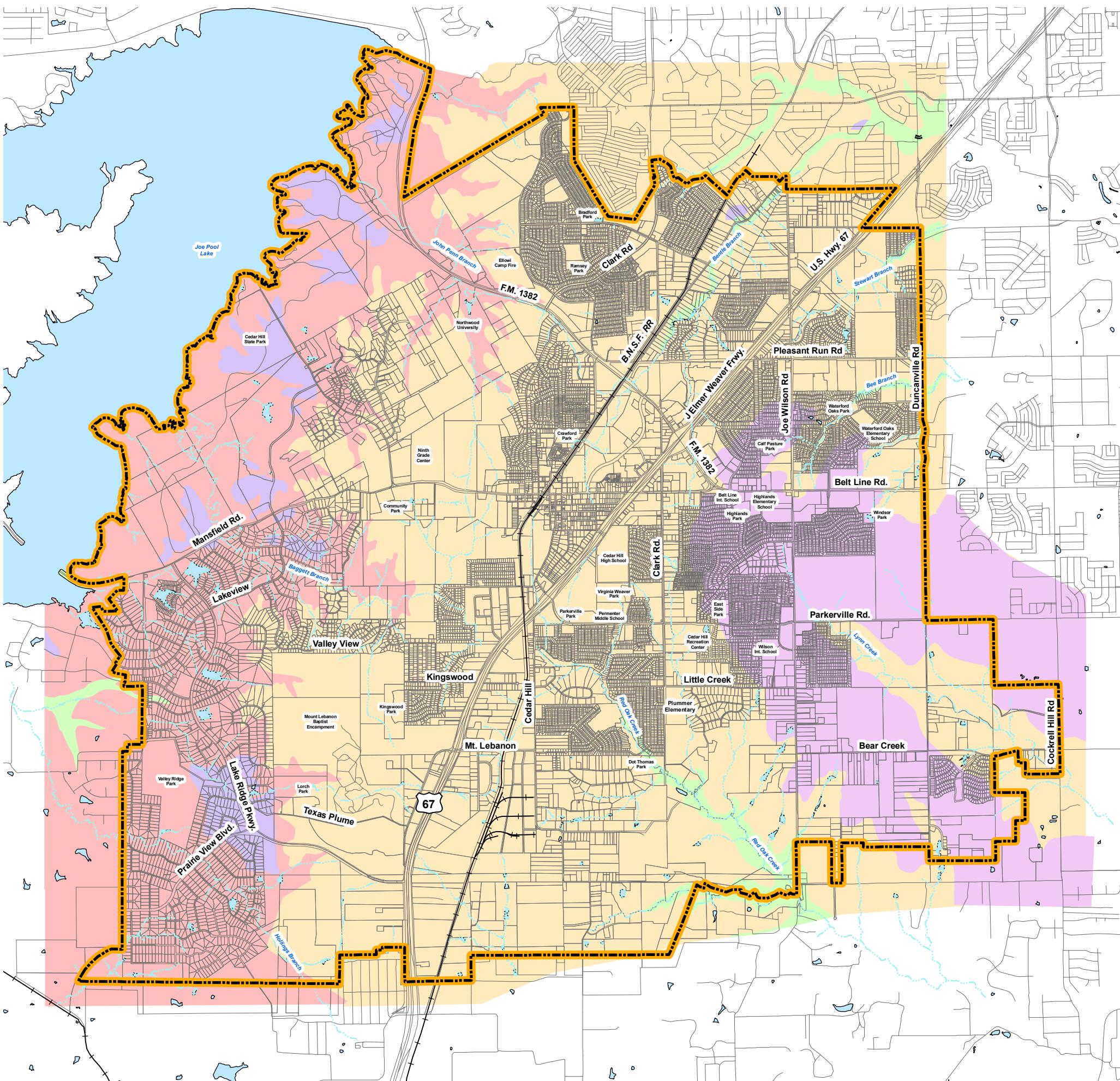
with slopes of five to 12 percent, is mapped as Vertel clay in the Dallas County Soil Survey. The Vertel clay is described as olive or olive gray, alkaline clay, and is classified as a very fine montmorillonitic soil. Well-known limitations of this type of soil are unstable slopes, erosion, corrosiveness, and low soil strength. Hillsides in the Eagle Ford Shale steeper than about eight to 12 degrees are generally unstable, and may slough or creep if disturbed. The area on top of the Escarpment actually has very small fractures, which allow water to seep through. Some of the water, which permeates the Austin Chalk, flows in a horizontal direction to the face of the Escarpment where it seeps out to ground level. This gradual seepage is one of the reasons that the dense vegetation and tree cover exists within the Escarpment area. If this natural water seepage is ever stopped or significantly reduced, it would likely have a negative impact upon the Escarpment ecosystem.

Care must be taken when urban development of any intensity occurs on the Eagle Ford Shale soils below the Escarpment. Since disruption of the Eagle Ford soils is problematic, it will be important to properly manage lot density and other construction activities. Although modern building practices can mitigate many of the construction challenges, minimal disruption of the Eagle Ford soils, where possible, should be a development objective. The City already has foundation and other construction requirements in place, but careful consideration of development policies on the Eagle Ford Shale is still warranted. Conversely, the Austin Chalk is better suited for urban development with its more stable soils.

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<sup>1</sup> In the residual soils and bedrock of the Eagle Ford Shale, a maximum free swell may be in the range of 15 percent, with swell pressures up to  $2,489 \text{ KN/m}^2$  (26tons/ft<sup>2</sup>). (Allen, Peter M. and Flanigan, William D., A Geology of Dallas, Texas, United States of America, *Bulletin of Association of Engineering Geologists*, Vol. XXIII, No. 4, 1986, p. 394).





# Surface Geology

- Austin Chalk
- Quaternary Alluvium of Floodplain
- Fluvial Terrace Deposits
- Eagle Ford Formation
- Ozan Formation

Plate 1-4





The Escarpment Development Regulations, previously mentioned, provide minimum engineering and construction requirements for development affected by the Eagle Ford Shale and the Escarpment outcrop area. The clay soils can be highly expansive; they tend to shrink when dried and swell when moistened. The magnitude of this expansive potential varies, and should be considered when designing surface-related development features, such as pavements and foundations. The construction industry has developed various methods and techniques to deal with the problems presented by the local soils. Examples of some typical construction solutions include modified foundation systems, the installation of drainage systems, and the treatment and stabilization of foundation soils.



Foundation preparation on the Eagle Ford Shale

## Drainage Basins

Three major drainage basins exist within the City of Cedar Hill: the Mountain Creek basin, the Ten-Mile Creek basin, and the Red Oak Creek basin. The Red Oak Creek basin generally drains from the vicinity of Parkerville Road and U.S. Highway 67 southeasterly through the community of Ovilla. The Bentle Branch Creek runs into the Ten-Mile Creek basin; it generally flows northward from Belt Line Road into the Ten-Mile Creek, which eventually flows through the City of DeSoto. Although some development exists along these creeks, many parts of these drainage areas are still in their natural states, offering possible passive recreational opportunities.



# EXISTING TRANSPORTATION SYSTEM PLANS

## Loop 9

The concept for an “outer loop” around the Dallas metro area was first identified in 1964. By 1968, the Texas Highway Commission had authorized the project and designated it as “Loop 9.” However, due to financing problems the project was put on hold in 1976.

Loop 9 has undergone several alignment modifications through the years, but has always remained in Cedar Hill’s long range and transportation planning efforts. The City included the Loop 9 project in its 1986 Land Use and Thoroughfare Plan. In late 1991, a Dallas County bond program included funds for a Loop 9 Feasibility and Alignment Study.

Currently, the proposed time frame for construction is sometime between 2012 and 2015. Two alternate alignments for the Cedar Hill portion of Loop 9 are still being considered, but it is thought that Alternative 1, the southern route, is the preferred route for the City of Cedar Hill. Both alternatives are shown on Plate 1-5. Further discussion of Loop 9 can be found in Chapter 3 of this *Comprehensive Plan*.

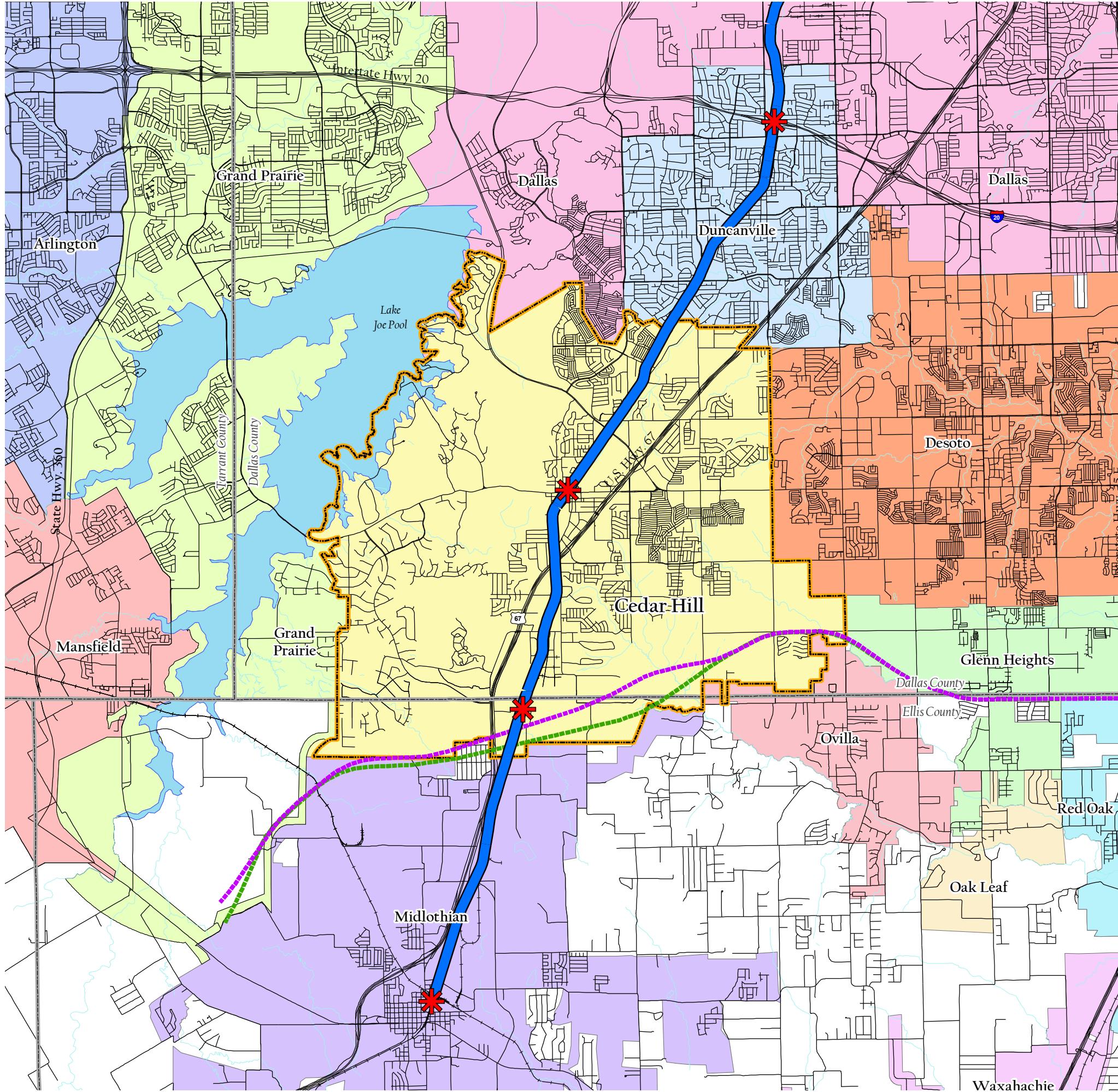
## Regional Rail

Regional Rail is a commuter transit concept identified and evaluated by the NCTCOG, serving as the Metropolitan Planning Organization for the Dallas – Fort Worth Metropolitan Area. The notion of regional rail is to coordinate between existing transit authorities and additional entities to provide mobility options throughout most of the North Central Texas area.

Passenger rail service has been a part of NCTCOG’s long range planning efforts for over 25 years. Most recently, NCTCOG included a Regional Rail Corridor Study as part of the Mobility 2025 update. The guiding principles of the Study were to: enhance mobility, consider appropriate technologies, seek and encourage public participation, consider environmental effects, and achieve regional consensus.

Eight specific corridors were included and evaluated as part of the study, including the E-5 corridor or what is referred to as the Midlothian Line. The Midlothian Line, named due to its termination in Midlothian, would extend through Cedar Hill, with two possible transit station locations indicated in or near Cedar Hill, as shown on Plate 1-5. The E-5 corridor is approximately 19 miles of an existing Burlington Northern and Santa Fe Railway (BNSF) freight rail line, which runs from the Westmorland DART station in Dallas to Midlothian.

Although studies have been conducted and alternatives evaluated, the reality of regional rail in Cedar Hill still has obstacles to overcome, specifically a feasible financing mechanism. The creation of a regional rail passenger district and subsequent implementation of a half-cent sales and use tax has been suggested, but will require State legislative authority.



# Existing Transportation System Plans

- Proposed Rail Station
- Regional Rail
- Loop 9 - Alternate 1
- Loop 9 - Alternate 2

Plate 1-5

