



Neighborhood Redevelopment Study

Spring 2006

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Forward

In June of 1993, the Department of Landscape Architecture & Urban Planning at Texas A&M University formally initiated the Texas Target Cities Program. Under this program, a city is selected to serve as a real world learning laboratory for graduate students. The program was created for two reasons. First, it provides students with educational experience that is enhanced and made more relevant through the application of instruction and course work on actual problems and issues. Second, the targeted community receives valuable assistance that can make a positive difference in the quality of life for its residents.

The municipality selected as the Target City for academic year 2005-2006 was Lewisville, Texas. The purpose of this document is to present a neighborhood redevelopment study consisting of a neighborhood evaluation and an enhancement plan.

The planning process associated with the production of this document began in the fall of 2005. Students from the Master of Urban Planning degree program began a nine-month sequence of graduate courses dedicated to the analysis of data and the preparation of this plan. Applied Planning, I, taught in the fall of 2005 was used primarily for the purpose of data acquisition and analysis. Applied Planning II, in the spring of 2006 was used for the purpose of formulating the enhancement plan. This document is structured in three parts. Part I consists of the Neighborhood Evaluation, which contains an introduction and a comprehensive review of the existing community. Part 2 contains the identified Strengths, Weaknesses, Opportunities and Threats for the neighborhood. Part 3 contains the Enhancement Plan, which consists of design proposals and complementary financial initiatives to improve the viability of the neighborhood.

Acknowledgements

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Executive Summary

A neighborhood revitalization study of the Fox Avenue corridor in Lewisville was conducted in the fall of 2005 and the spring of 2006 by the Texas A&M University Target Cities Program. The Fox Avenue corridor neighborhood study area is bounded by Main Street on the north, IH-35E on the east, Bellaire on the south and Old Orchard on the west, with Fox Avenue being the central east-west road. For more detailed analysis the study area was further divided into seven sub-areas according to the block group areas defined by the U.S. Census.

Included within this study are an evaluation of demographic changes, a comparison of existing infrastructure to current design standards, a complete survey of property conditions for all parcels, computations of land/house appraisal ratios to assess neighborhood viability, evaluation of current code enforcement efforts in the neighborhood and analysis of key economic indicators. The data used in this study were mainly gathered from the U.S. census website, the Denton County Appraisal District, the City of Lewisville and on-site surveys.

The on-site surveys were mostly performed in October of 2005 and February of 2006. The survey was a drive-by, windshield evaluation based on a five-category continuum consisting of Standard, Minor Repair, Dilapidated and Demolished units. Over 1100 single-family housing units were surveyed and the majority of them were found in standard or minor repair conditions. Although the property ratio analysis showed pockets with high property ratios (poor improvement in land value) in sub-areas 1, 2 and 5, it should not be a concern as it is probably due to the inherent problem of the property ratio analysis. Overall, the property ratio analysis generally agreed with the housing condition surveys. The existing infrastructure in the study area

also meets the current city standards but improvements can be made to make it more pedestrian friendly.

Analysis of the demographics data confirmed that the study area did experience a significant demographic shift. However, the household median income in the study area is still decent but there is a concern that the income levels will follow a trend downward. Location quotient analysis concluded that those businesses doing well in the study area are largely related to residential sector. In view of the aging housing stock in the study area, businesses that cater to home improvements for the study area has a high potential to grow. The commercial areas are generally well maintained except the Lewisville Plaza shopping center (Fox and Edmonds) where improved aesthetics and parking conditions could further enhance the vitality of this shopping center located at the heart of the study area.

Overall, the old residential properties do not pose any immediate danger to the study area and the city should employ strategies as suggested in this report to encourage home renovation and improvement to prevent deterioration from occurring. There is also a potential for certain parts of this study area to be developed into a mixed use area with improved pedestrian facilities. This direction of development is supported by the demographic changes and the economic characteristics specific to this study area.

Introduction

In 2005, the City of Lewisville approved a neighborhood revitalization study of the Fox Avenue corridor in Lewisville that was conducted by the Texas Target Cities Program within the Department of Landscape Architecture and Urban Planning (LAUP), in the College of Architecture at Texas A&M University. A group of 16 Master of Urban Planning students in the Texas Target Cities Program were responsible for collecting existing data for the study area, analyzing the data collected, making recommendations for improvement and contributing to this final report.

The purpose of this revitalization study is to examine the demographics, housing conditions, current land uses and economic conditions to find a strong basis for revitalizing the Fox Avenue corridor. The Fox Avenue corridor study area encompasses about 1600 acres (2-3 square miles) bounded by Main Street on the north, IH-35E on the east, Bellaire on the south and Old Orchard on the west, with Fox Avenue being the central east-west thoroughfare. Most of the study area was master planned in the 1960s but the houses along Surf Street are the only part of that plan that was implemented. From the early 1960s to the late 1970s many small homes, representing the majority of the housing in the study area, were built by Centennial and Fox & Jacobs. During the 1980s and 1990s there were only a few subdivisions built filling in the remaining vacant areas.

Many of the small homes built by Centennial and Fox & Jacobs from the early 60s to the late 70s, are starting to show some wear; however, they are still quite viable and vacancy is low. Most sell for around \$100,000. Generally, the quality and price of homes declines as one moves south and toward I35, but there are exceptions. Until a CIP was recently approved for road repair, the local roads were in bad shape in many places, particularly where homes are lower priced. With the exception of the recent demands

for local road repairs, neighborhood organizations are weak or nonexistent throughout the city, and the residents themselves are relatively satisfied, according to a city survey.

Main Street east of I-35 used to be a state highway, but after the state widened it the city requested, and received, control of the road so that streetscaping could be implemented in the nearby Old Town area to facilitate the redevelopment of the downtown district into some well-maintained, attractive retail centers. One year prior to this study, there was a housing condition survey conducted for the city by J-Quad and Associates. It was mainly focused on the east side of central Lewisville and consequently only overlapped a few fringe portions of this neighborhood study area. According to that housing condition survey, the housing conditions varied greatly within its study area. The housing condition survey report together with the Old Town Master Plan has shown that revitalization is becoming increasingly important for landlocked Lewisville.

With most of the houses in the study area built in the 1960s and 1970s the Fox Avenue study area is one of the areas in the city that has attracted the attention of City Council due to their concern about the older housing stock possibly becoming deteriorated. ~~Some have even called for bulldozing the neighborhood, while others argue the neighborhood has potential to be quite viable. Appraisals are also an issue. The appraisal district was under fire for raising appraisals too much in upscale neighborhoods.~~ Also, the demographics shift that the study area is experiencing also concerns the City Council and the City Council would like to see the study area to develop its own identity in the long run.

To address the City Council's concerns, this study is carried out to provide the information necessary for guiding public and private revitalization and redevelopment efforts to stabilize the Fox Avenue corridor and reverse the declining path of the area to create a viable economic and residential center for Lewisville. To accomplish this, the study was conducted in two phases. Phase one of the study was a neighborhood evaluation that included the following activities:

1. Evaluate current demographics and trends.
2. Compare existing infrastructure to current design standards.
3. Complete survey of property conditions for all parcels.
4. Compute land/house appraisal ratios to assess neighborhood viability.
5. Evaluate of current code enforcement efforts in the neighborhood.
6. Analyze key economic indicators.

Based upon this information, a neighborhood enhancement plan was created. To complete this 2nd phase, the following steps were followed:

1. Analyze the data gathered in phase one to identify Strengths, Weaknesses, Opportunities and Threats with regards to the study area.
2. Develop a neighborhood enhancement plan for the area based on the unique characteristics of the neighborhood.
3. Outline alternative strategies for plan implementation.

Demographics

The assessment of the population and demographic changes is also necessary in order to identify the market potential of the study area. It also helps the city guide future land use plans and decide what changes in the land use plans may be necessary in order to achieve the desired objectives.

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Analysis of U.S. Census Data

The Fox Avenue Study Area (FASA) consists of all the block groups of census tract 217.13 and block groups 1 and 5 of census tract 217.12. A detailed statistical analysis of population trends in the study area was conducted focusing on population growth, median age, ethnic distribution, density and home ownership. These characteristics reveal the direction in which the area is headed with respect to the future demand on services and infrastructure. The assessment of the population and demographic changes is also necessary in order to identify the market potential of the study area. It also helps the city guide future land use plans and decide what changes in the land use plans may be necessary in order to achieve the desired objectives. The following sections highlight the demographic changes that the area has experienced from 1990.

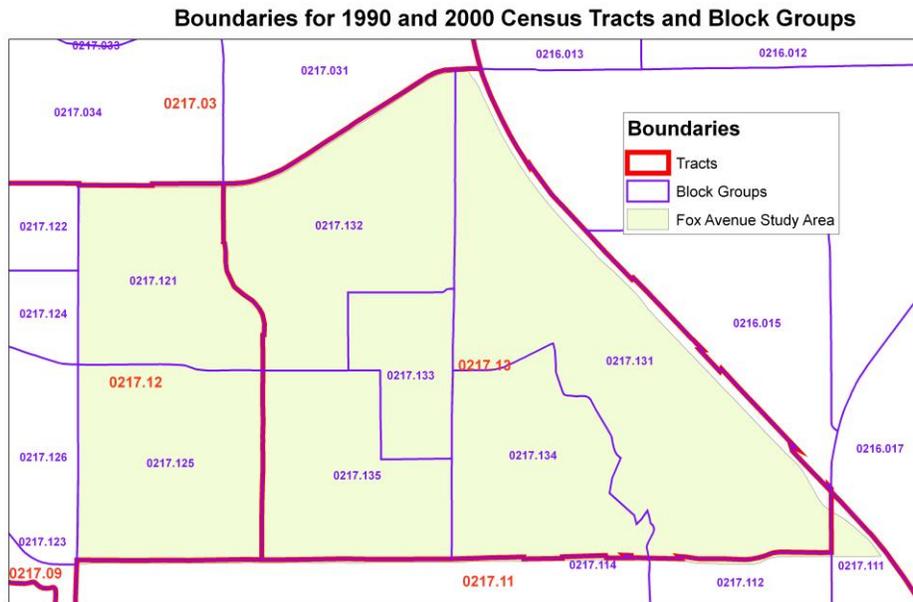


Figure 2.1: Block Groups within the study area, 1990-2000

(Source: U.S. Census 1990, U.S. Census 2000)

Population Growth

As shown in the Figure 2.2, the population within study area rose appreciably during the decade 1990 - 2000.

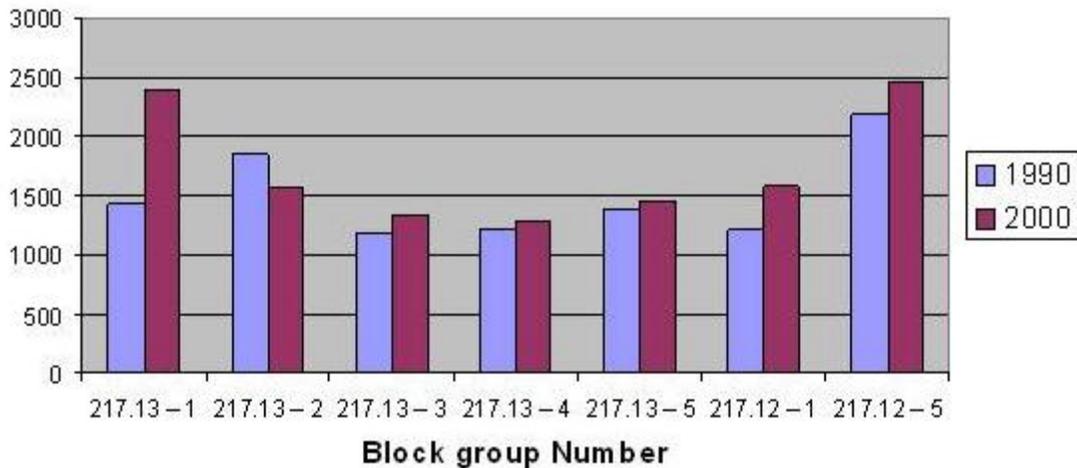


Figure 2.2: Population Change by Block Group, 1990-2000

(Source: U.S. Census 1990, U.S. Census 2000)

The most rapid population growth occurred within block group 217.13-1, adjacent to IH-35E, with an increase of over 50%. The only block group with a population decrease occurred in block group 217.13-2, adjacent to Main St between Valley and Edmonds. During the same period a similar rise in population was observed in both Lewisville proper and Dallas during the decade 1990 – 2000 suggesting that the population increase within the study area was not exceptional.

Age Distribution

As displayed in Figure 2.23, the study area has a significant amount of people in the age group of 25 – 45 years, which leads to the conclusion that the study area contains young, working people.

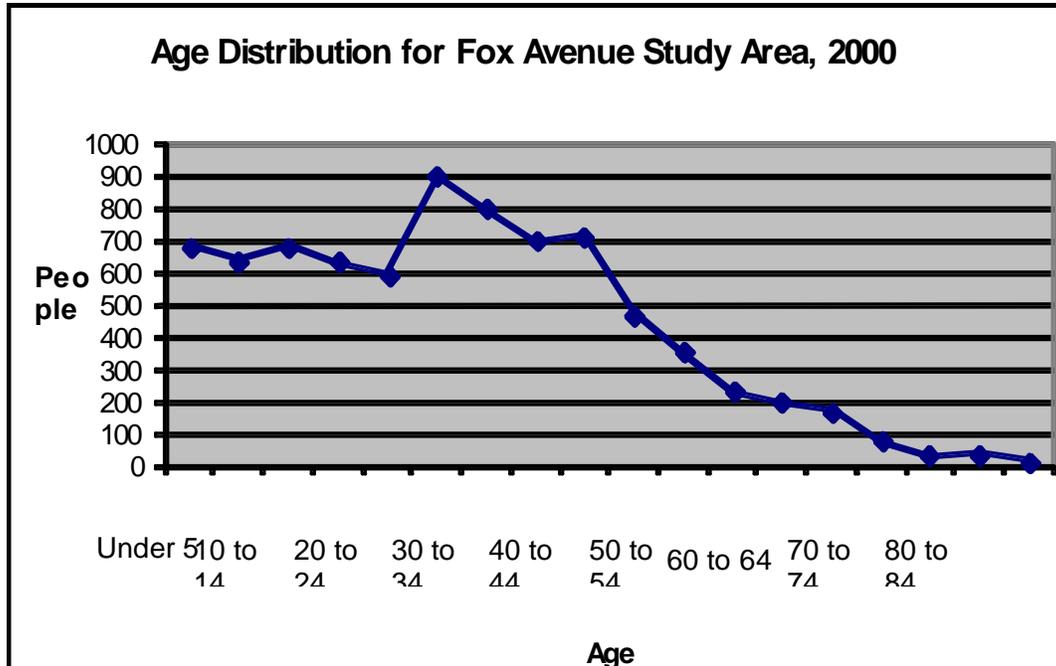


Figure 2.3: Age Distribution for Fox Avenue Study Area in 2000

(Source: U.S. Census 2000)

This conclusion is further supported by Figure 2.4, which shows that in the year 2000 the median age across all of the block groups was close to 30 years.

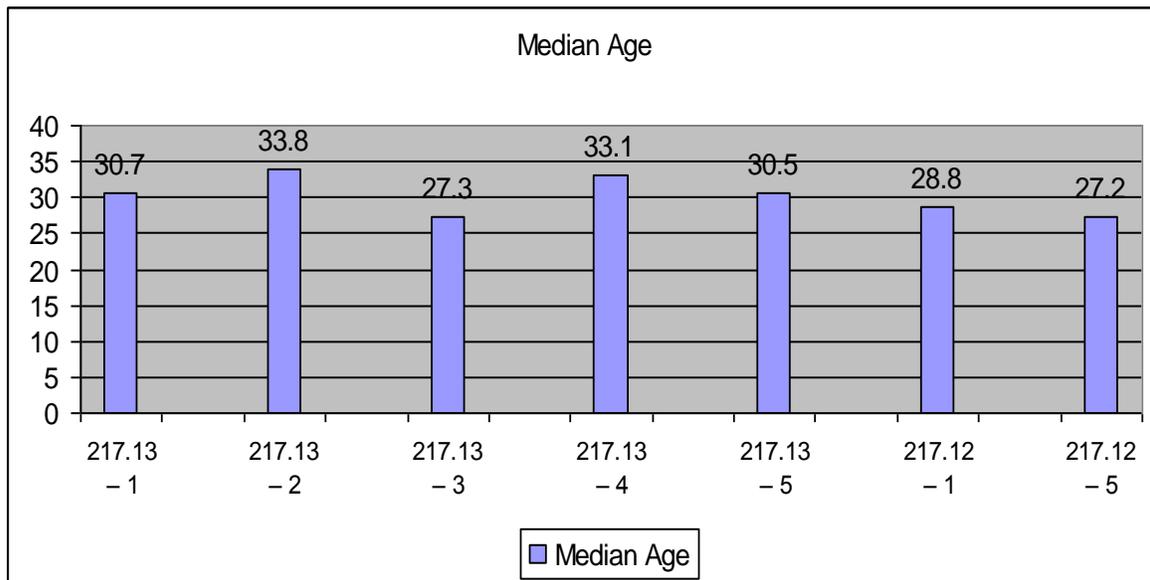


Figure 2.4: Median Age by Block Group in 2000

(Source: U.S. Census 2000)

Ethnic Distribution

The study area also has a dominant Hispanic population as illustrated by Figure 2.45 shown below.

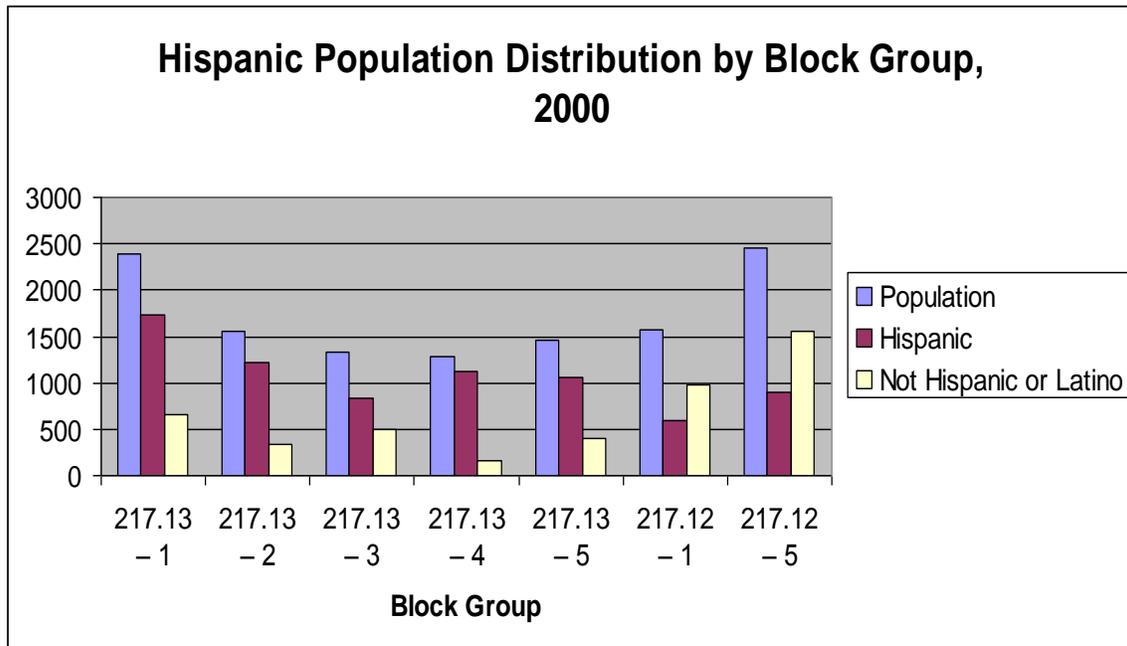


Figure 2.5: Ethnic Distribution by Block Group in 2000

(Source: U.S. Census 2000.)

Only two block groups in the study area have more non-Hispanics than Hispanics, but the overall study area has a majority Hispanic population. As shown in Figure 2.56 the study area was 62% Hispanic in the year 2000.

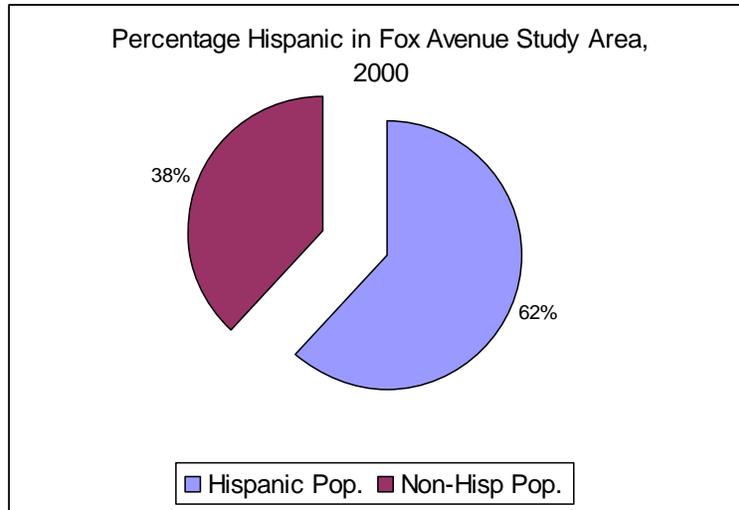


Figure 2.6: Year 2000, Percentage Hispanic in Fox Avenue Study Area

(Source: U.S. Census 2000)

Table 2.1, below, provides a comparison of the study area with the City of Lewisville. The median household income of the study area is more than that of the city but the per capita income is a bit less than that of the city. Perhaps this is due to the greater number of people per household in the study area.

Table 2.1: Demographic changes in study area and Lewisville for 1990-2000

Category	Study Area		City	
	1990 Census	2000 Census	1990 Census	2000 Census
Population	10,485	12,041	46,418	77,737
Households	3,556	5,887	17,611	30,043
Ave HH Size	-	2.91	-	30,043
Median HH Income	\$47,673.90	\$67,790.71	\$36,006.00	\$54,771.00
Per Capita Income	\$16,741.14	\$22,187.86	\$15,386.00	\$24,703.00
Hispanic Pop	601	7,437	4,026	13,837
Non-Hisp. Pop	9,884	4,604	42,495	63,900
Median Age	-	33.4	-	28.9
Total Housing Units*	3,734	6,271	17,683	31,764
Owner Occupied	2,440	4,415	9,165	16,184
Renter Occupied	1,116	1,472	8,513	13,859
Vacant Housing Units	178	384	5	1,721

**Housing Units accounts for both multi-family and single-family units of housing*

(Source: U.S. Census 1990, U.S. Census 2000)

Census data on all housing units, including individual apartments, reveals that there is a greater percentage of owner occupied (75.0%) housing within the study area than the within Lewisville overall (54.4%). However, this data from the Census includes all types of housing, not just single-family housing. Home owners are typically more desirable based on the assumption that home owners tend to take care of their houses properly to protect their investment among other motivations. Moreover, the number of renter-occupied housing units increased much less than the City of Lewisville.

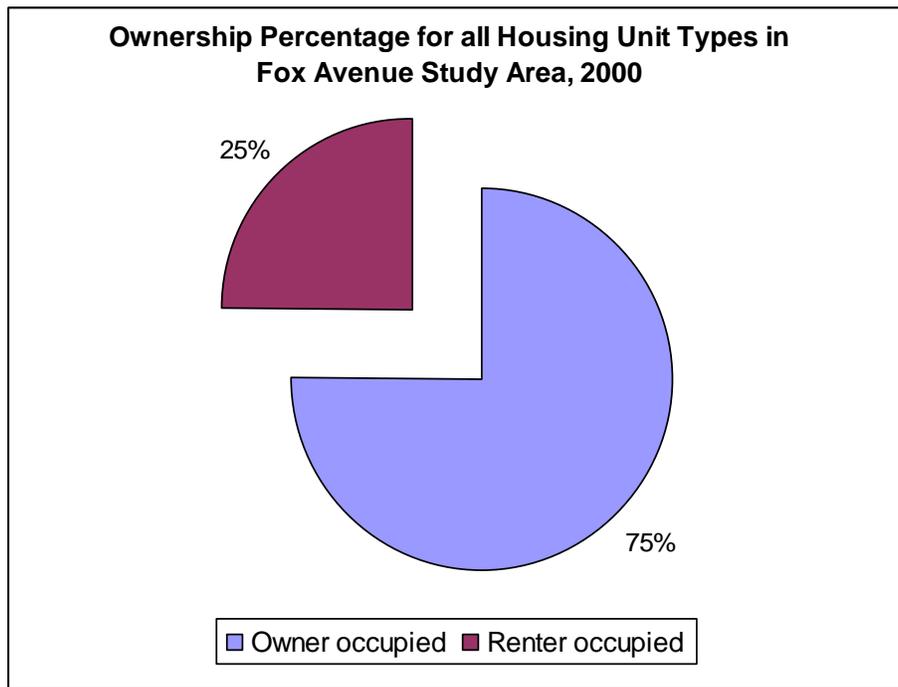


Figure 2.7: Percentage of Owner- and Renter-Occupied housing (all types, including MF) for Fox Avenue Study Area in 2000

(Source: U.S. Census 2000)

Home Value Trends

Like other cities in north Texas, Lewisville experienced explosive growth during the 1990's, however much of that growth occurred outside the Fox Avenue Study Area (FASA), which was relatively build out by this time. The data confirms that the FASA consists of older neighborhoods comprised of mostly "starter" homes built during the 1970's and 80's. Data from the US Census Bureau indicates that by 2000, 98% of the housing units in FASA were at least 15 years old, as compared to 65% for the entire

city. The average median year built for homes in the FASA is 1976, verses 1989 for Lewisville generally. Surprisingly, however these homes have maintained values which are still comparable to those in the rest of the city.

Table 2.2 shows the total housing units, occupied housing units, and single family housing units for the city of Lewisville and FASA from 1980 to 2000.

Table 2.2: Housing Unit Totals

Lewisville city	1980	1990	2000
Total Housing Units	8,694	19,724	31,720
Occupied Housing Units	7,986	17,683	30,025
Single-Family Housing Units	6,289	10,413	16,841
FASA	1980	1990	2000
Total Housing Units	3,842	4,085	4,169
Occupied Housing Units	3,724	3,853	4,038
Single-Family Housing Units	2,925	2,994	3,011

(Source: U.S. Census Bureau)

During this time, the total number of housing units in Lewisville increased 265% from 8,694 to 31,720, and the number of single-family home jumped 168% from 6,289 to 16,841. The vacancy rate for the city averaged 8% of total housing units. By 2005, there were 17,405 single-family homes in Lewisville—a 3% increase over 2000 single-family home figures. This dramatic decrease indicates that the entire city is nearly built out.

In FASA, the changes were far less impressive than for the city in general. Total housing units in the study area only increased by 9% in the same 20 year time period, and single-family homes increased a mere 3%. However, the vacancy rate in FASA was half that of the entire city, averaging only 4%. The low vacancy rates can probably be

attributed to the study area being occupied by families with children, who remained until the children graduated primary school. Data from the school district analysis tends to corroborate this theory. ~~From 2000 to 2005 however, the number of single-family home in the FASA has actually decreased 6% from 3,011 to 2,821.~~ In 1980, single-family homes in FASA represented 47% of all the single-family homes in Lewisville, today they make up only 16% of the total.

Table 2.3: Median Home Value in actual & inflation-adjusted dollars

Year	Lewisville city		FASA	
	Median Value	Adjusted Dollars*	Median Value	Adjusted Dollars*
1980	\$51,300	\$130,284	\$47,500	\$120,634
1990	\$81,600	\$121,367	\$63,271	\$94,105
2000	\$116,700	\$129,600	\$83,629	\$92,873
2005	\$134,291	N/A	\$101,942	N/A

* 2005 Dollars

(Source: Median Values-US Census Bureau & Denton County Appraisal District records; Adjusted Dollar calculations-Computer Support Group, Inc., www.csnetwork.com)

The median home value for single family housing has increased across the board for all areas of Lewisville. Home values increase 127% from 1980 to 2000, and 15% more from 2000 to 2005. But for FASA, the values increase at a lesser rate, climbing only 76% from 1980 to 2000, and jumping 22% from 2000 to 2005 (See Chart above). Table 2.3 shows the median home values for Lewisville and FASA from 1980 to 2005 in actual and inflation-adjusted dollars. Currently, the median value of homes in FASA is only three-quarters (76%) of the median value of homes in all of Lewisville. However, considering the age of these homes, this level of valuation is remarkable. Moreover, in inflation-adjusted dollars, median home values in Lewisville have only increased 3.1% in 25 years, while FASA home values only decreased 15.5%.

The comparable median values of homes in FASA suggested that these homes have been generally well maintained despite the fact that the percentage of renter-occupied homes in the area increased 85% from 1980 to 2000. Renter-occupied housing

units now make up nearly half the total housing units in the study area (See Table 2.4), while the percentage of owner-occupied units has declined 14% over the same period.

Table 2.4: FASA Housing Occupant Type Percentages

Housing Units & Occupant Type	1980	1990	2000
Occupied Housing Units	3,724	3,853	4,038
Owner-occupied	72%	55%	57%
Renter-occupied	28%	45%	43%

(Source: U.S. Census Bureau)

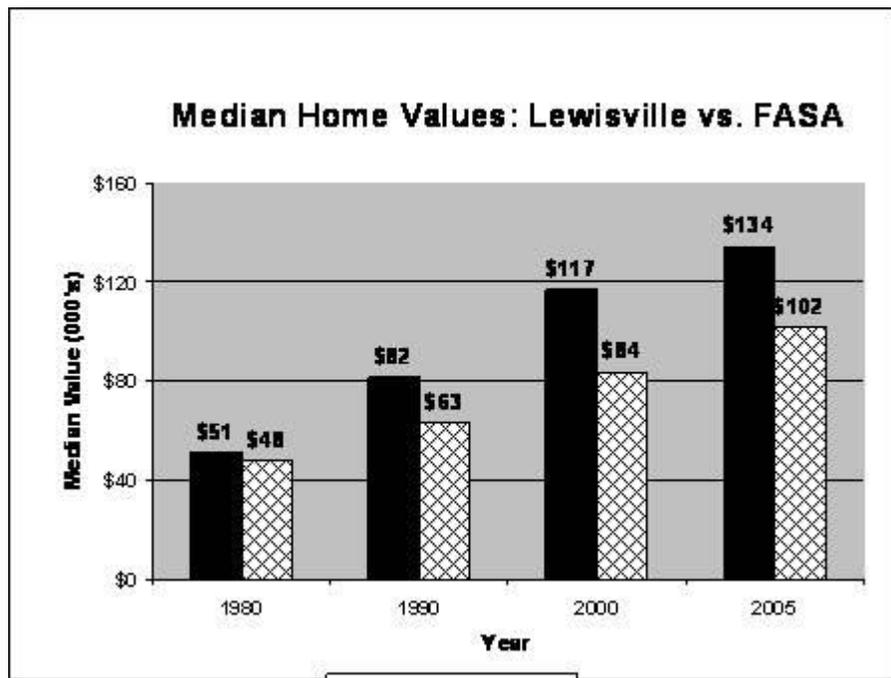


Figure 2.8: Median Home Value Trend, 1980-2005

(Source: US Census & Denton County Appraisal District)

Lewisville ISD Data Analysis

Analysis of demographic data on students collected by school districts can provide insight into the community the students reside within. Lewisville Independent School District (LISD) is located 25 miles from downtown Dallas, Texas, encompasses 127 square miles, and serves all or part of 13 communities. The district operates 51 schools, and in the 2004-05 school year had an operating budget of \$371M dollars. For the last three years, the districts property tax rate has been \$1.77 per \$100 valuation, and in 2005, the total taxable value of real property in the district was \$17.4B dollars. According to LISD literature, the district has produced numerous National Merit finalists and semi-finalists, and most of LISD's schools are either "Recognized" or "Exemplary". In addition, the district boosted SAT and ACT scores which are above both state and national averages. Finally, LISD's drop-out rate is an exceptionally low 0.3%, which is two-thirds lower than the state average.

The Fox Avenue Study Area (FASA) is serviced by 6 LISD schools, which include 3 elementary schools (Central, Hedrick, & Lakeland), 2 middle schools (Delay & Hedrick), and one high school

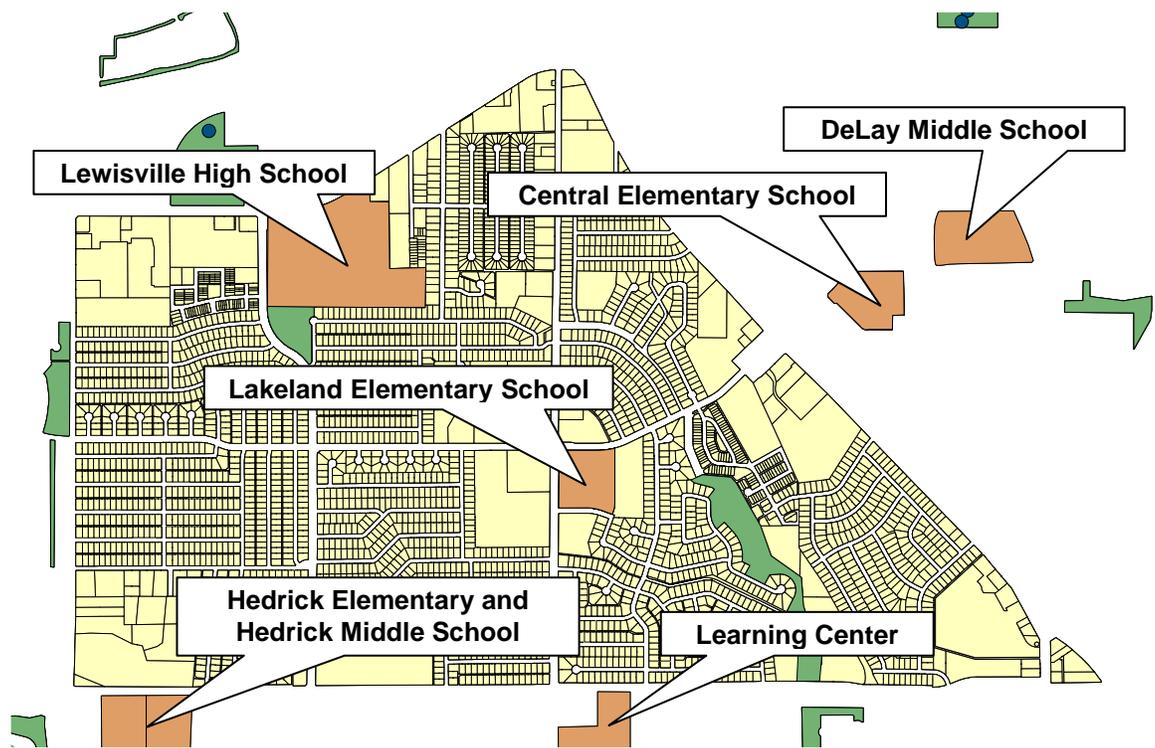


Figure 2.9: Schools Serving the Fox Avenue Study Area

(Source: Lewisville ISD, 2005)

(Lewisville). Attendance in these schools includes, but is not limited to, students residing within the FASA. In 2004-05, these schools had a total enrollment of 5,952 students, and the operating budgets of all campuses combined were \$38,345,877. All of the schools are listed as “Academically Acceptable”, which is the lowest Texas Education Agency (TEA) campus rating, and the drop-out rate at Lewisville High School equals the state average of 0.9%. SAT and ACT scores for Lewisville HS are above state averages, but below district averages.

Ethnic Distribution

The ethnic distribution of students in FASA has changed dramatically over last 15 years. Figure 2.10 shows the ethnic distribution of students in FASA versus the entire school district.

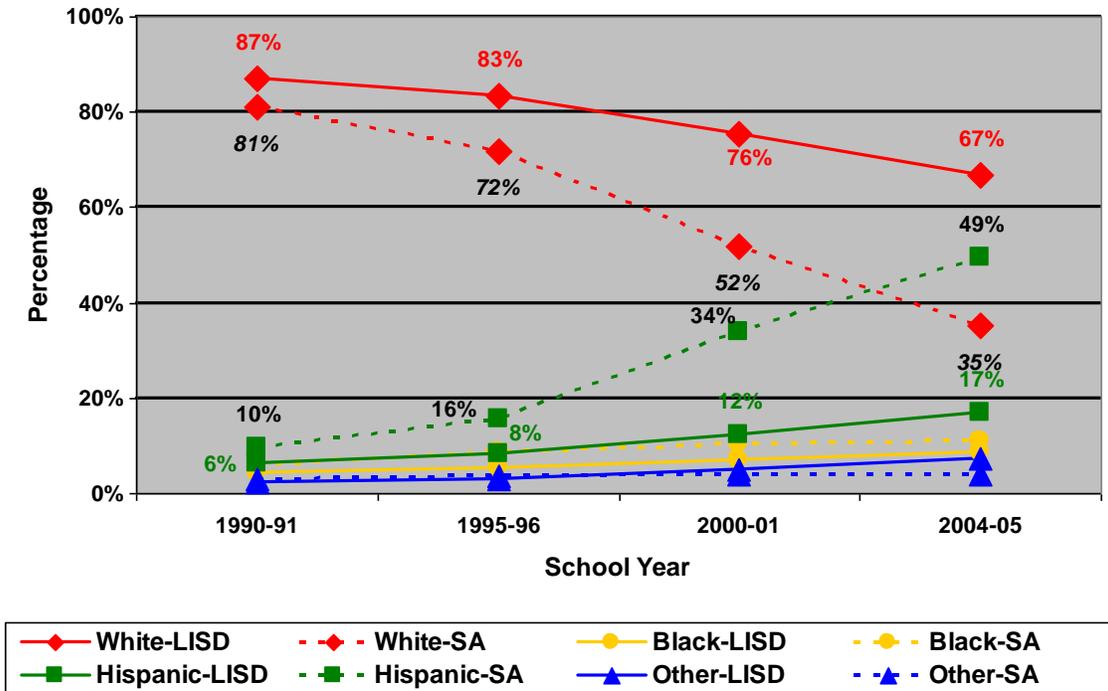


Figure 2.10: Ethnic Distribution Percentages: LISD vs. FASA

(Source: Texas Education Agency)

The most striking change is the contrasting percentages of White and Hispanic students in the district and more importantly in the FASA. From 1995-96 to 2004-05, the percentage of Hispanic students in LISD doubled, but in FASA the percentage of Hispanic students more than tripled. At the same time, the percentage of White students in the district decreased by nearly 17%, while the percentage in FASA declined 37%. There was only a slight increase in the number of Black students both in FASA and the district as a whole. Other races (mostly Asian) increased district-wide, but fell slightly in FASA.

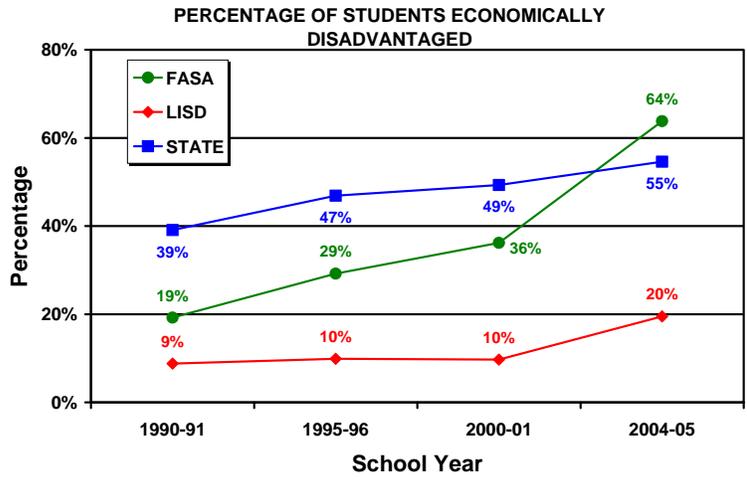


Figure 2.11: Percentage Economically Disadvantaged
 (Source: Texas Education Agency, 2005)

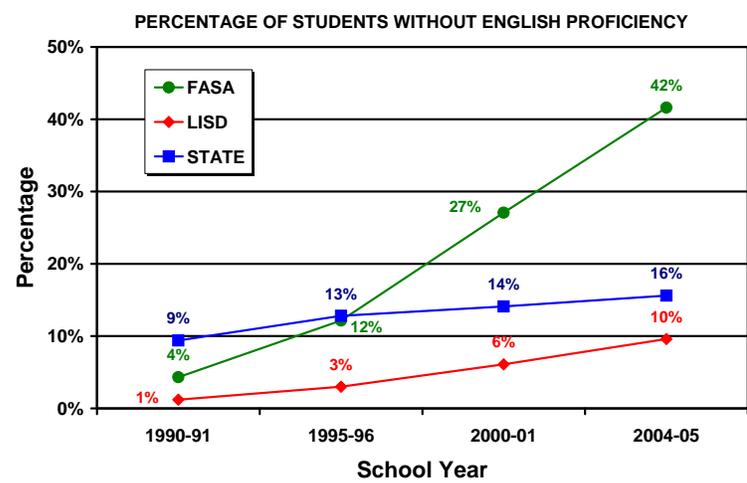


Figure 2.12: Percentage Without English Proficiency
 (Source: Texas Education Agency, 2005)

Socioeconomic Distribution

Other data seems to indicate that many of the new students (and families) in the FASA were poorer, and had greater social challenges than previous residents. Figure 2.11 illustrates the percentages of students who were economically disadvantaged for the FASA, the district, and the State of Texas. The chart clearly shows a marked increase in the number of economically disadvantaged students in the FASA, particularly after the 1995-96 school year. District-wide, from 1995-96 to 2000-01, the percentage of disadvantaged students remained unchanged at around 10%; however in FASA, percentage of disadvantaged students increased 24%, then the percentage tripled in the next 4 years (+76%) to a total of 64% of all students in FASA. The FASA was primarily responsible for the 10% increase in economically disadvantaged students district-wide. Similarly, the number of Limited English Proficient (LEP) students increased sharply over the same time period. LEP percentages district-wide went from 3% in 1995-96 to 10% in 2004-05, but in the FASA, that number increased from 12% to 42%. Figure 2.12 shows the LEP percentages for the FASA, the district, and the state. Moreover, the percentages of special education, and English as a Second Language (ESL) students were both higher, and the percentage of gifted and talented students was less than either district or state averages throughout the review period (See Table 2.5). This information suggests that during the review period, the FASA was inundated with lowered income students with numerous learning deficiencies and language barriers.

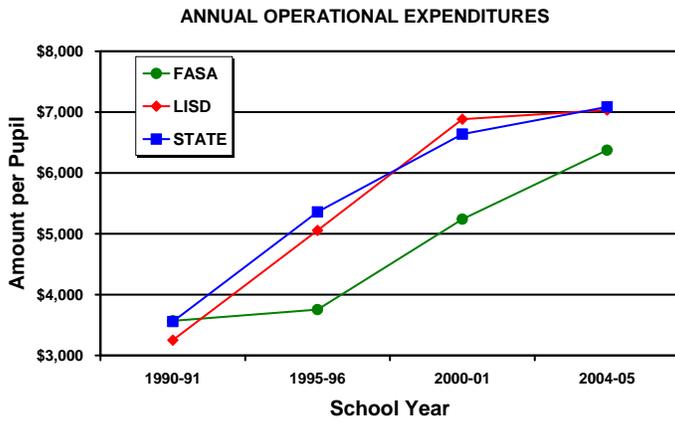


Figure 2.13: Operational Expenditures per pupil

(Source: Texas Education Agency, 2005)

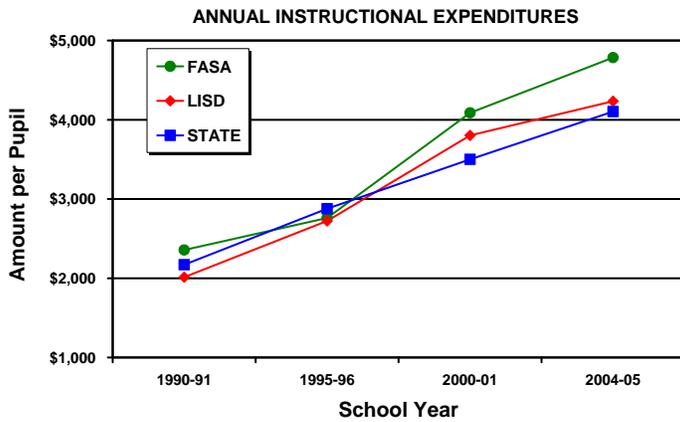


Figure 2.14: Instructional Expenditures per pupil

(Source: Texas Education Agency, 2005)

Financial information for FASA schools also revealed mixed results. Figures +2.13 and +2.134 display the operational and instructional expenditures per pupil for the FASA, the district, and the state.

Instructional expenditures for FASA schools were above district and state averages during most of the review period. However, operational expenditures at FASA schools were at or below district and state levels for the entire review period. The data seems to indicate the school district increased instructional funding in response to the increasing numbers of students with learning and language barriers.

Table 2.5: School Data LISD, State of Texas, & FASA

Lewisville ISD	1990-91	1995-96	2000-01	2004-05
% Student Attendance	96.3%	95.9%	96.5%	96.8%
Drop-out Rate	2.9%	1.0%	0.1%	0.3%
White	18,066	23,622	29,546	30,307
Black	874	1,479	2,788	3,844
Hispanic	1,311	2,366	4,799	7,676
Other	480	853	1,963	3,277
Total Enrollment	20,731	28,320	39,096	45,335
Economically Disadvantaged	8.8%	9.9%	9.7%	19.5%
Limited English Proficient	1.2%	3.0%	6.1%	9.6%
Student/Teacher Ratio	17.4	15.2	14.6	13.9
Operating Expenditures/pupil	\$ 3,251	\$ 5,056	\$ 6,884	\$ 7,034
Instructional Expenditures/pupil	\$ 2,014	\$ 2,723	\$ 3,803	\$ 4,233
Special Education	10.8%	13.1%	12.4%	10.9%
Bilingual/ESL Education	1.2%	2.4%	4.9%	8.3%
Gifted & Talented Education	7.6%	6.7%	6.6%	8.7%
State of Texas	1990-91	1995-96	2000-01	2004-05
% Student Attendance	95.6%	95.1%	95.6%	95.7%
Drop-out Rate	5.1%	1.8%	1.3%	0.9%
Economically Disadvantaged	39.1%	46.9%	49.3%	54.6%
Limited English Proficient	9.4%	12.8%	14.1%	15.6%
Student/Teacher Ratio	16.4	15.6	14.8	14.9
Operating Expenditures/pupil	\$ 3,557	\$ 5,358	\$ 6,638	\$ 7,084
Instructional Expenditures/pupil	\$ 2,171	\$ 2,877	\$ 3,500	\$ 4,103
Special Education	9.6%	11.5%	11.9%	11.6%
Bilingual/ESL Education	8.4%	11.3%	12.6%	14.4%
Gifted & Talented Education	6.9%	7.8%	8.4%	7.7%
FASA Schools	1990-91	1995-96	2000-01	2004-05
% Student Attendance	95.8%	95.9%	95.9%	96.7%
Drop-out Rate	7.2%	1.3%	0.1%	0.9%
White	3,638	4,434	3,211	2,093
Black	275	528	627	654
Hispanic	440	969	2,105	2,938
Other	138	235	243	246
Total Enrollment	4,491	6,166	6,186	5,952
Economically Disadvantaged	19.2%	29.2%	36.2%	63.8%
Limited English Proficient	4.3%	12.2%	27.1%	41.6%
Student/Teacher Ratio	16.5	13.6	13.6	12.1
Operating Expenditures/pupil	\$ 3,570	\$ 2,831	\$ 5,241	\$ 6,373
Instructional Expenditures/pupil	\$ 2,357	\$ 2,050	\$ 4,087	\$ 4,785
Special Education	13.7%	16.3%	15.2%	13.5%
Bilingual/ESL Education	4.3%	10.0%	25.5%	39.8%
Gifted & Talented Education	4.8%	4.6%	5.2%	6.1%

Source: Texas Education Agency, 2005

Local Economy

The Fox Avenue corridor developed rapidly in the 1970s. Most of the businesses in the study area are retail, in particular home-related. The home values in this study area have remained stable and are selling at typical prices for comparable age and square footage. This sub-section is an analysis of the local economy in the Fox Avenue study area.

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The City of Lewisville economy is primarily driven by the retail trade sector with 420 businesses accounting for about 28% of all the commercial establishments in the city. The second largest number is in the professional, scientific and technical services sector, which has 197 establishments accounting for about 13% of the total. The lowest number of establishments is 14, in the educational services sector.

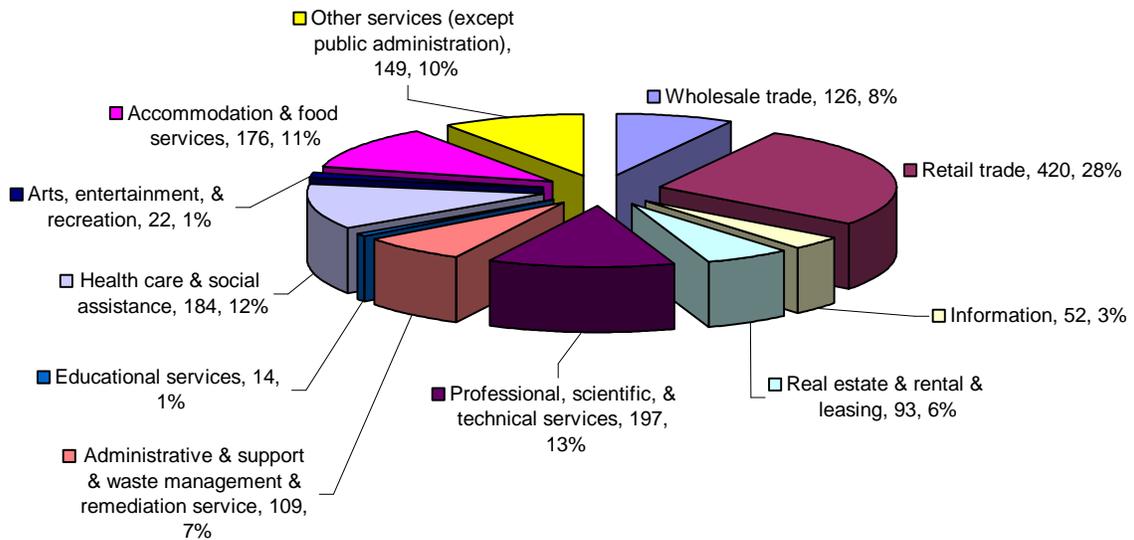


Figure 3.1: Number of establishments in Lewisville as of 2002 census

(Source: 2002 Economic Census, U.S. Census Bureau)

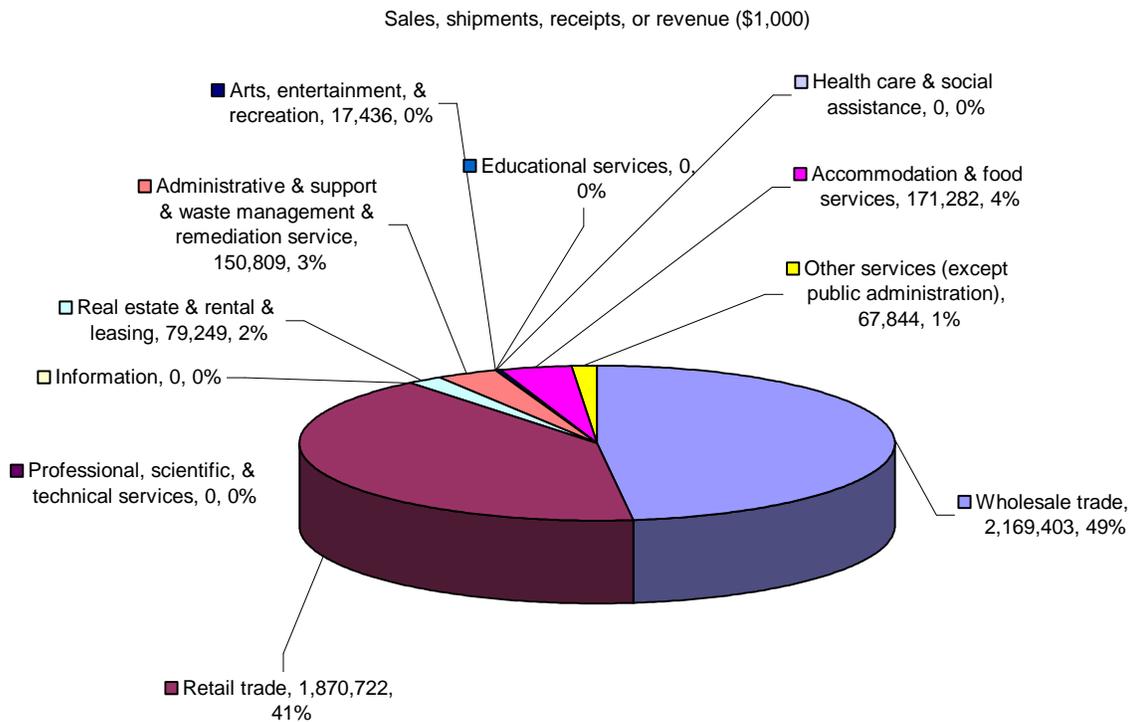


Figure 3.2: Income sources

(Source: 2002 Economic Census, U.S. Census Bureau)

The leading contributing sector in terms of income generated in the year 2002 in Lewisville is the wholesale trade sector. It generated about \$2 million, accounting for about 50% of the total income in the city. It is important to note that some sectors exhibit 0% because of privacy policies, and that some data were not available. For example, the information sector has \$0 income and 0 %, simply due to lack of data.

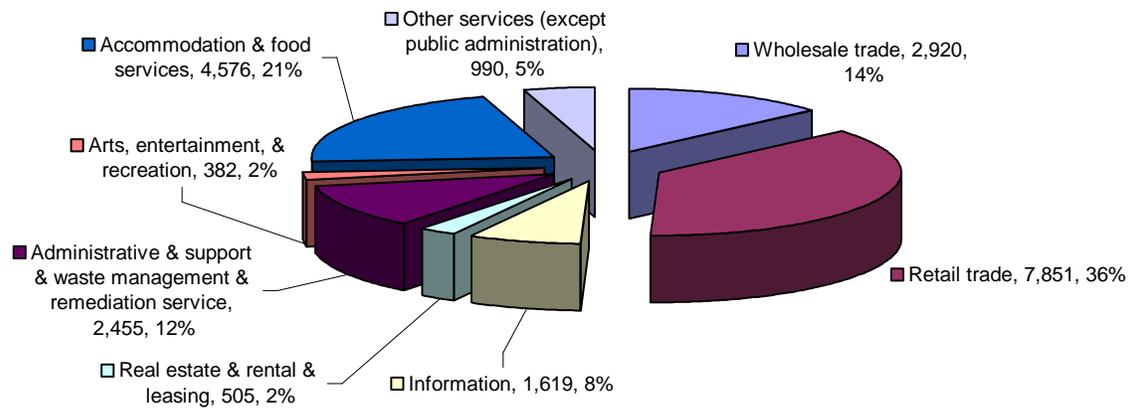


Figure 3.3: Number of employees by sector

(Source: 2002 Economic Census, U.S. Census Bureau)

The leading sector in number of employees is the accommodation and food services sector. It provides jobs for about 4576 people, which accounts for 21% of the total employment in the city. The “Administrative & support & waste management & remediation services” sector employs 2455 people amounting to 12% of the total.

Location Quotient Analysis

The location quotient technique is the most commonly utilized economic analysis method. This technique compares the local economy to a reference economy, in order to identify specializations in the local economy. The location quotient technique is based upon a calculated ratio between the local economy and the economy of some reference unit. This ratio, called an industry "location quotient," gives this technique its name. Location quotients are calculated for all industries/businesses to determine whether or not the local economy has a greater share of each industry than expected when compared to a reference economy. If an industry has a greater share than expected of a given industry, then that "extra" industry employment is assumed to be "Basic" because those jobs are above what a local economy should have to serve local needs. Basic jobs are important because they bring money into the local economy, thus causing growth in other sectors.

This analysis reveals localized regional advantages that promote agglomeration of such businesses. These advantages include existing subsidiary and support services that provide new firms with experienced subcontractors and finance, distribution, and marketing firms familiar with the needs and problems related to the particular industry. Thus agglomeration economies include the support infrastructure that in turn becomes available to support additional capital and employment expansion. Expansion, therefore, tends to come in those businesses that already exist in an area, increasing the concentration of firms in a particular business.

Analyzing the economic profile of the City of Lewisville we used the following classification (NAICS 2002):

- 11 Agriculture, Forestry, Fishing, and Hunting

- 21 Mining
- 22 Utilities
- 23 Construction
- 31-33 Manufacturing
- 42 Wholesale trade
- 44-45 Retail trade
- 48-49 Transportation and warehousing
- 51 Information
- 52 Finance and insurance
- 53 Real estate and rental and leasing
- 54 Professional, scientific, and technical services
- 55 Management of companies and enterprises
- 56 Administrative, support, waste management, remediation services
- 61 Education services
- 62 Health care and social assistance
- 71 Arts, entertainment, and recreation
- 72 Accommodation and food services
- 81 Other public services, except Public Administration
- 92 Public administration
- 99 Unclassified

In order to calculate the location quotient for each of these businesses in the study area we compared it with the next unit of aggregation, the city of Lewisville. The data on the economic profile for both the geographic units are tabulated on the following page:

Table 3.1: Distribution of Businesses

NAICS_Sector Codes	Description	City	Fox Avenue Study Area
11	Agriculture, Forestry, Fishing, and Hunting	3	1
21	Mining	2	1
22	Utilities	6	0
23	Construction	325	31
	Manufacturing	162	15
42	Wholesale trade	158	8
	Retail trade	735	82
	Transportation and warehousing	52	4
51	Information	70	7
52	Finance and insurance	180	29
53	Real Estate, rental and leasing	163	21
54	Professional, scientific, and technical services	260	30
55	Management of companies and enterprises	2	0
56	Administrative, support, waste management, remediation services	138	11
61	Education services	63	10
62	Health care and social assistance	228	37
71	Arts, entertainment, and recreation	53	6
72	Accommodation and food services	252	40
81	Other public services	406	52
92	Public administration	58	3
99	Unclassified		
	Total Number*	3,316	388

*This excludes some businesses for which no details were available

(Source: InfoUSA, August 2005 and TAMU Visual Survey, 2006)

The location quotient for each type of the businesses was calculated as:

$$LQ = \frac{\frac{\text{Number}_{\text{Study Area}}}{\text{Total Businesses}_{\text{Study Area}}}}{\frac{\text{Number}_{\text{Lewisville}}}{\text{Total Businesses}_{\text{Lewisville}}}}$$

The location quotient analysis results are tabulated below:

Table 3.2: Calculated Location Quotients

NAICS Sectors*	LQ- Fox Avenue Study Area
Health care and social assistance	1.39
Finance and insurance	1.38
Education services	1.36
Accommodation and food services	1.36
Real Estate, rental and leasing	1.10
Other public services, except Public Administration	1.09
Professional, Scientific, and technical services	0.99
Arts, entertainment, and recreation	0.97
Retail trade	0.95
Information	0.85
Construction	0.82
Manufacturing	0.79
Administrative, support, waste management, remediation services	0.68
Transportation and warehousing	0.66
Public administration	0.44
Wholesale trade	0.43
Utilities	0.00
Management of companies and enterprises	0.00

*Mining (11) & Agriculture, Forestry, Fishing, and Hunting (21) have been excluded from the analysis due to the nature of these activities.

An LQ that is greater than 1.0 provides evidence of basic employment for a given industry. When an LQ is greater than 1.0, it can be concluded that local

employment is greater than expected and it is therefore assumed that this "extra" employment is basic. These extra jobs then must export their goods and services to non-local areas which, by definition, make them the basic sector employment. The above analysis reveals that the following sectors are basic and stand to benefit from the agglomeration of economies in the study area:

- Health care and social assistance
- Finance and insurance
- Education services
- Accommodation and food services
- Real Estate and rental and leasing
- Other public services, except public administration

From the above it is evident that the study area has a concentration of service industries that primarily cater to the residential needs. This highlights the importance of maintaining residential occupancy in the study area in order to maintain the viability of these agglomerating businesses.

For industries with LQ less than 1.0 there is not an agglomeration of businesses indicating that these services or products are imported from outside that respective area. Examples of this, as listed in the table on the previous page, include manufacturing, wholesale trade, public administration, transportation and warehousing.

Competing with the surrounding neighborhoods

The study area itself is surrounded by relatively higher end residential development. Thus it is logical that the surrounding neighborhoods would also have similar businesses that focus on the residential market. If the surrounding locations offer competitive advantages, chances are that these businesses may also move out if adequate intervention measures are not undertaken.

In this scenario it is important to compare the agglomeration factor of the immediately surrounding neighborhood with the study area. In order to define the 'surrounding area', a distance of ±one block surrounding the study area was delineated as the surrounding neighborhood, presented below in Figure 3.4. The surrounding neighborhood was limited to this side of the freeway as IH-35E serves as a natural barrier impeding the attraction factor of such businesses.

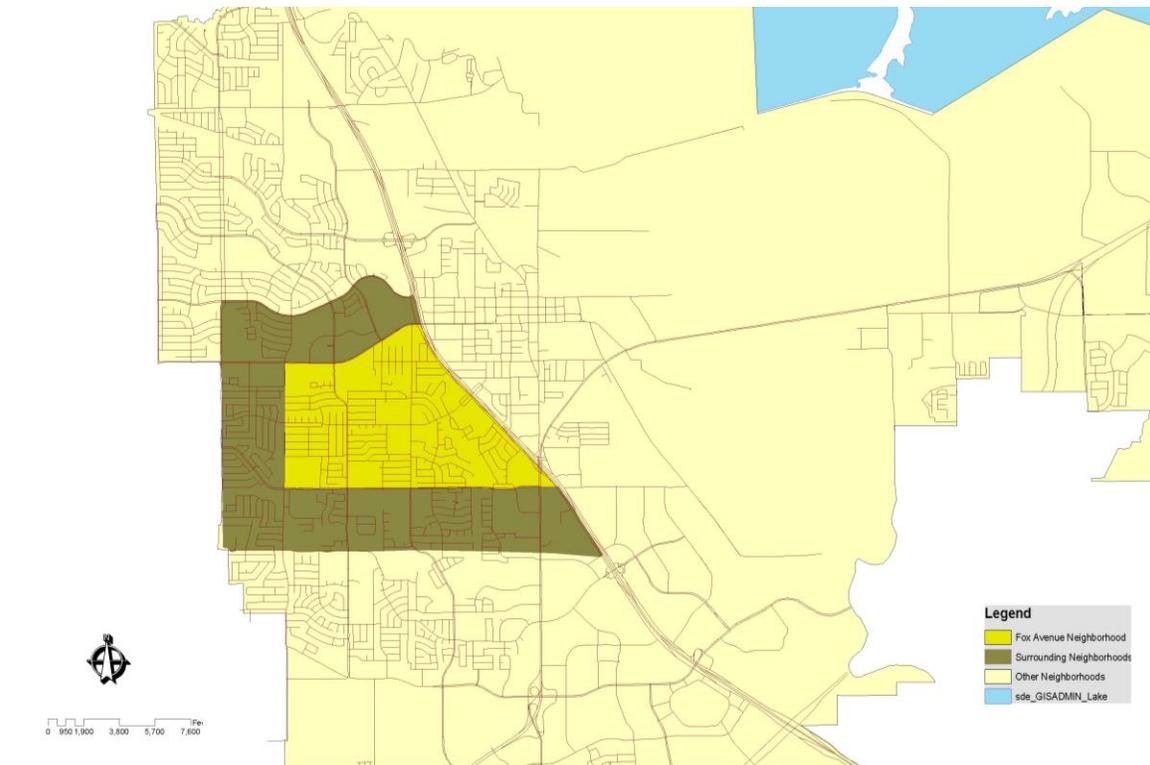


Figure 3.4: Location of study area and surrounding area used for comparison

The location quotient was calculated for these surrounding neighborhoods using the same methodology as discussed earlier. The results of the analysis are tabulated on the next page:

Table 3.3: Comparison of LQs between study area and surrounding areas

NAICS Sectors	LQ- Fox Avenue Study Area	LQ-Surrounding Areas
Health care and social assistance	1.39	0.00
Finance and insurance	1.38	1.34
Education services	1.36	0.55
Accommodation and food services	1.36	0.52

NAICS Sectors	LQ- Fox Avenue Study Area	LQ-Surrounding Areas
Real Estate, rental and leasing	1.10	0.76
Other public services, except Public Administration	1.09	1.59
Professional, scientific, and technical services	0.99	0.93
Arts, entertainment, and recreation	0.97	1.28
Retail trade	0.95	0.76
Information	0.85	1.04
Construction	0.82	2.94
Manufacturing	0.79	0.98
Administrative, support, waste management, remediation services	0.68	1.22
Transportation and warehousing	0.66	1.08
Public administration	0.44	1.22
Wholesale trade	0.43	1.05
Utilities	0.00	1.06
Management of companies and enterprises	0.00	2.54

As is evident from the above calculations, the study area does have a locational advantage with respect to its surrounding neighborhood. However there does seem some cause of concern as the surrounding neighborhoods have a high coefficient for construction, wholesale trade and management. These neighborhoods also have a higher concentration of administrative support and public administration services.

From the results of this comparative analysis it can be concluded that the locational advantage that the study area offers for agglomeration of businesses cannot be sustained in the future without active intervention. Investment in facilities and services that increase the standard of living of the local residents would help in sustaining the residential market that these businesses need to continue to prosper. On the other hand relatively higher investments in improving surrounding neighborhoods would

promote the departure of the existing businesses and result in further decline of the neighborhood.

Land Use and Zoning

This portion of the report examines the existing land uses and current zoning within the Fox Avenue Corridor study area to reveal the existing land use patterns, current zoning objectives and evaluate how closely the existing land uses conform to the current zoning.

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Land Use

The current land use in the study area was documented during the visual surveys conducted by student teams in October 2005 and February 2006. The parcels in the study area were categorized into the following twelve different land use types listed in the legend of the figure displayed below. To better identify the different types of “Public Use” land usage, the schools and city parks are displayed separately instead of having them all contained within a single “Public Use” as they are in the zoning map. The category, “Vacant”, includes both parcels with entirely vacant buildings and parcels without any structures. Commercial land use was categorized into two categories. The “Office” category includes medical services, banking services, insurance services and is most similar to the “Local Commercial” zoning category which includes professional offices. The “Retail” land use category was used to identify commercial activities with higher traffic than the “Office” category and is more similar to the “General Business” zoning category. The “Retail” land use category includes but is not limited to restaurants, shops, grocery stores, dry cleaning, fitness centers and day care.



Figure 4.1: Existing Land Use in Fox Avenue Study Area

(Source: Property condition visual survey, February 2006)

After single-family residential the next most intensive land use in the study area is retail, which is naturally clustered along the noisy, high traffic areas that offer greater visibility than residential areas. The varied land uses that exist in the core of the study area at Fox and Edmonds provides dynamic activity patterns with two apartment complexes, local commercial, three churches and an elementary school all in close proximity. Housing density is greatest along the central to eastern portion of Fox Avenue where three of the five major apartment complexes in the study area exist as well as a town home development, Creekside Town Homes. Along the northern portion of Edmonds near Purnell a series of professional office complexes seems to be developing into an office district. Access to the Raldon-Lake Cities Park is limited.

Zoning

The current zoning in the study area reflects the conditions and changes that have occurred over time. The commercial areas are appropriately zoned along the high traffic arterial roads, Main Street and IH-35E frontage. The zoning of town homes along

Fox Creek looks as though it could provide for increased property values from the nature access but the narrow dimensions of this land and limited access to thoroughfares could pose some traffic challenges.

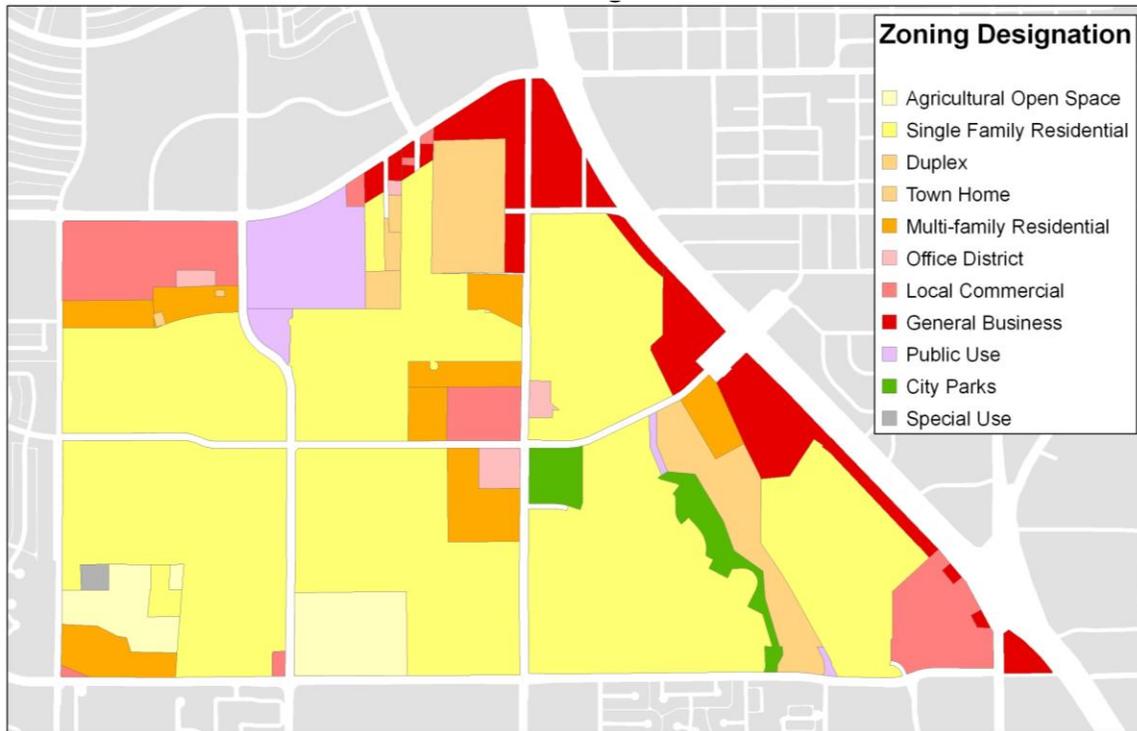


Figure 4.2: Existing Land Use in Fox Avenue Study Area

(Source: City of Lewisville GIS, October 2005)

It is interesting to note that Lakeland Plaza at SH121 Business, IH-35E and Bellaire has been zoned to allow “Local Commercial” activities instead of the greater flexibility in activities allowed for “General Business” which is used for all other parcels along IH-35E in this study area. The land adjacent to the east of Fox Creek Stream has been zoned for town homes to continue the pattern or land usage that started with Creekside Town Homes.

Conformity of Land Use with Zoning

~~Consistency between the zoning and the plan has been a perceived problem, because when the plan was updated the Council did not want to change the zoning for all the affected people. Instead, the city has offered to waive zoning fees if a landowner~~

requests a rezone that is consistent with the plan (even permitted commercial uses must obtain approval of a site plan and a design review committee). With only a few exceptions, there is strong consistency between the existing land uses and current zoning for the Fox Avenue Corridor study area. The figure below displays the few areas where land use non-conformity exists.

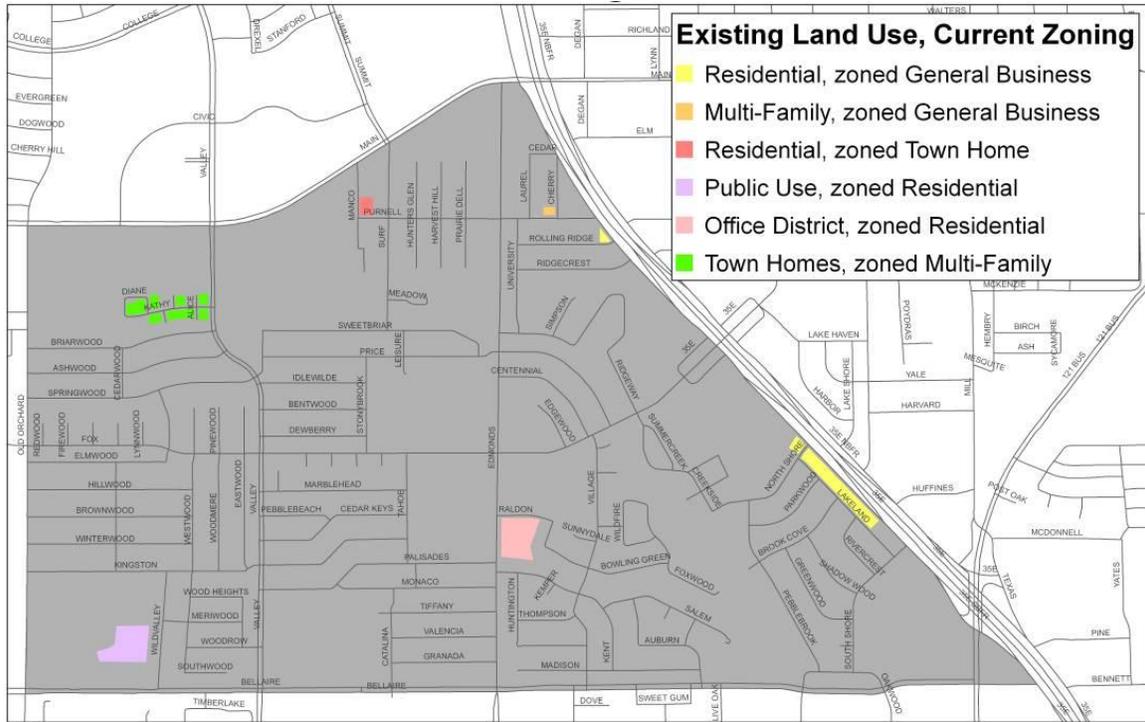


Figure 4.3: Non-conforming Land Uses in study area

(Source: Visual Surveys, February 2006)

In some cases only an update to the zoning map is required. The Public Use shown on the map above is the recently built water tower. As of the October 2005 zoning map this area was still designated as “R-7.5” land use. The strip of homes along IH-35E will be taken and demolished during the IH-35E expansion project **making eliminating** those non-conforming uses **history**. Will the remaining land adjacent to the frontage retain single-family residential zoning or will this be encouraged to become commercial because of its immediate adjacency to the frontage road? The cases of non-conformities are listed in the table below:

Table 4.1: List of non-conforming land uses

NAME	LOCATION	EXISTING LAND USE	CURRENT ZONING
Green Valley Addition Subdivision	Valley Pkwy and Kathy Lane	Town Homes and Duplex	Multi-Family and Duplex <u>Town Home</u>
Mini-Skools Ltd	968 Raldon	Office District – “Commercial School”	Single Family Residential
Apartments	701 Purnell	Multi-family Residential	General Business
Harbor Heights Subdivision	575-595-585 Manco	Single Family Residential and Office	Town Home <u>Duplexes</u>

(Source: Visual Surveys February 2006; CoL GIS, October 2005)

~~The small triangular parcel located on the Northeast corner of Old Orchard and Bellaire appears to be too small for a viable local commercial usage. Rezoning this to “City Park” could provide a more reasonable usage that would be compatible with the adjacent Oak Tree apartments and Hedrick Middle and Elementary Schools on the southeastern corner of this intersection.~~

~~With the creation of two duplex islands amidst the “Multi-family Residential” zoning for the “Green Valley Addition” subdivision, the future of this subdivision is unclear. There are some cases of piecemeal zoning differences that do not seem clear as to why these exceptions are being made. Fore instance along Main Street west of Surf the parcel Taco Cabana sits upon is zoned for “Local Commercial” whereas the neighboring parcels are zoned for “General Business.” This piecemeal zoning could send the message that zoning is negotiable and exceptions are accommodated which could erode the authority of the zoning.~~

Property Condition Survey

To assess the conditions a visual survey of the residential, commercial and vacant properties was conducted by student teams. The data obtained from these studies is analyzed and discussed within this section.

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Commercial Properties

The commercial survey provided information regarding facility condition, occupancy and aesthetics. The Fox Avenue Corridor has multiple commercial areas containing shopping centers that vary in age, size and clientele. The occupancy rate overall was fairly consistent, but there are a handful of centers that have a sizable number of vacancies. There are 309 total commercial properties, 43 of which are vacant, a capacity rate of 86%.¹ Below is a tabulation of total units, vacancies, and capacity rate, listed by shopping center or thoroughfare of less than 100% capacity. |

<u>SHOPPING CENTER</u>	<u>TOTAL UNITS</u>	<u>VACANCIES</u>	<u>% OCCUPIED</u>
Valley Square	20	2	90%
Old Orchard East	43	7	86%
Main Valley	42	7	85%
Pines 2	5	1	80%
Lakeland Plaza	35	13	73%
Lewisville West	25	11	69%

¹ As of February 3, 2006.



Main Valley Shopping Center



Old Orchard East Shopping Center

The majority of building material in all of these commercial areas is brick, although a considerable amount mixes brick with concrete. The rest of the building material, used sparingly, includes wood, stucco, stone or plain concrete. Common among most of these shopping malls are verandas of varying colors and materials, columns, signage and lighting.



Terry's Market – Fox Avenue and



Lakeland Plaza

Most of the commercial buildings are in good condition, particularly facades and structural integrity. In some instances, such as Lakeland Plaza, however, lighting and condition of parking surface is a concern. All of the buildings could easily be refreshed and transformed into more modern, attractive shops with new color schemes, signage, landscaping, and uniform urban design features.

Lewisville has no urban design guidelines, except for the Old Town District where the Old Town Development Ordinance is in place. This ordinance outlines the

design district and stipulates that all structures new or old must adhere to the guidelines for commercial, multi-family residential, mixed-use, single-family residential and institutional. These guidelines have revitalized Old Town and tied together the district with its design standards and attention to street-level design. Taking a similar approach to the commercial businesses in the study area, particularly centers with high vacancy counts, would be both aesthetically and economically beneficial to business owners and residents of the nearby neighborhoods.

One of the more notable observations of the shopping centers is the expansive concrete with little semblance of landscaping. Updating these centers using streetscape and landscape attention would create a more aesthetically pleasing and pedestrian-friendly environment for local shoppers. The General Development Ordinance of Lewisville contains landscape regulations. Article VI. Landscape Requirements and Tree Ordinance requires one, 2.5 caliper tree per every fifteen parking spaces. Since most of these buildings were built before this requirement was set and there are no retro-active stipulations, nearly all are not up to standard. Requiring the new standards for any renovations would be wise.

Residential Properties

A parcel-by-parcel survey of the study area allowed for collection of data on the general housing conditions in the neighborhood. Each residential property was ranked on a scale of 1 – 4, with each value corresponding to a level of housing quality. It is worth noting that this survey is not an aesthetic index, though housing quality, especially those aspects of it that can be assessed from the street, has a strong relationship to aesthetics and good visual quality. The parcel ranking scale used the following criteria:

- Standard Condition (rank 1) - Exhibited standard to good housing conditions. Homes in this category are new or in need of no substantial repairs.
- Minor Repair (rank 2) - Required minor repairs, usually cosmetic in nature.
- Major Repair (rank 3) – Were visibly in need of major repairs. These repairs were deemed necessary either due to extensive deterioration of cosmetic elements, such as finishes, or through visually apparent structural problems.
- Dilapidated (rank 4) - Indicates that any structures present are in such a state as to pose a danger to inhabitants or are apparently abandoned.

Figure 5.1 is a map of the study area with parcels shaded by housing quality index value. The analysis clearly shows that most of the properties received ratings of 1 or 2, indicating relatively good condition. Though parcels requiring major repairs do exist, they are scattered across the study area, occurring singly or in groups of two or three homes, and only one dilapidated property was found.

Given the spatial distribution of the different property classes, we can conclude that no portion of the study area deserves to be considered blighted. Index values indicating poor housing conditions were not concentrated to any great degree. They were instead intermingled with properties in good condition, leading us to believe that any deficiencies in housing quality and aesthetics in the study area are an individual issue rather than a neighborhood-wide problem. Age of housing in the study area, has been categorized by subdivision name and year built, is shown in Figure 5.2.

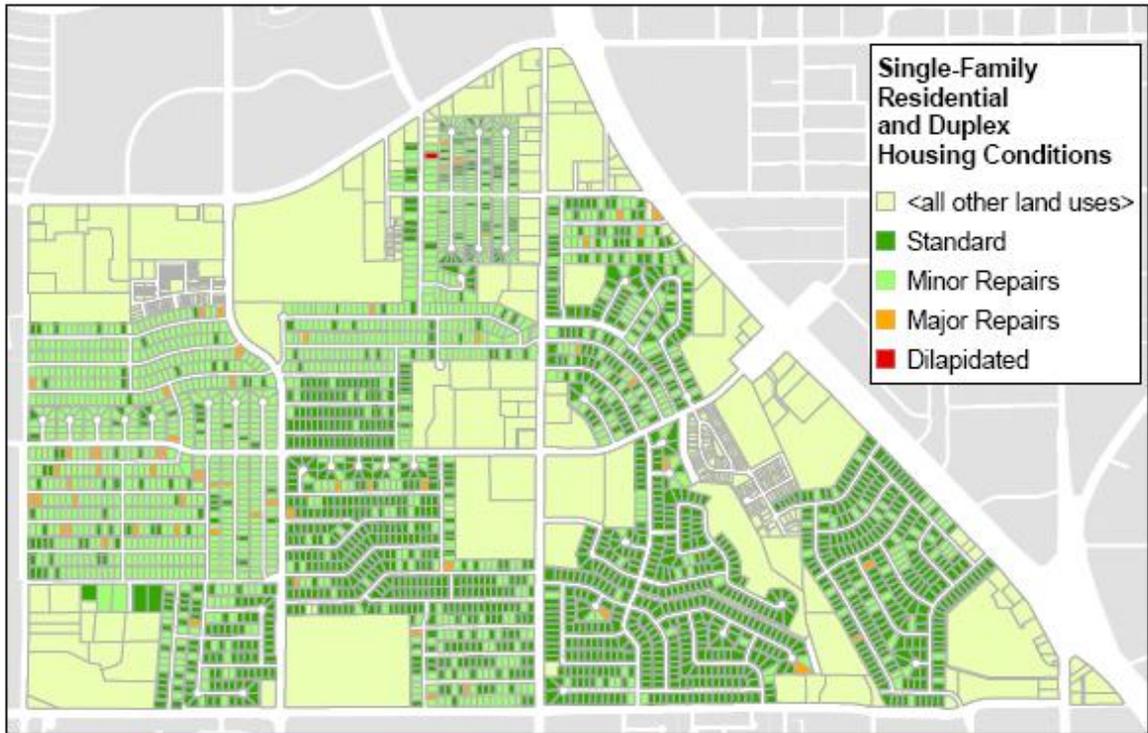


Figure 5.1: Housing Condition Survey for City of Lewisville, Texas

Source: Windshield data collected 10/24/2005 – 02/10/2006.

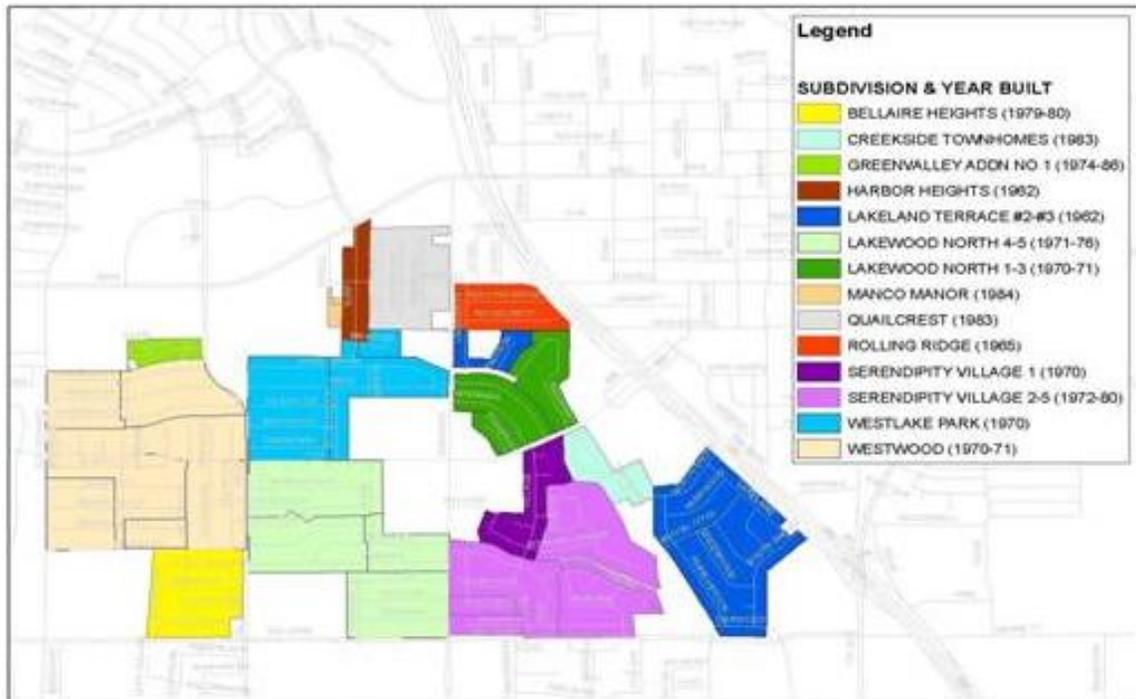


Figure 5.2: Study Area Subdivisions and Year Built

Vacant Parcels

From the visual survey fifty-nine vacant parcels were found, including one small circular parcel along SH 121 Business that could have been possibly platted for a pole sign. Most of the parcels do not have any significant barriers to development. There are a few sites that still have slabs from demolitions or development projects that did not have enough funds to proceed beyond pouring the slab.

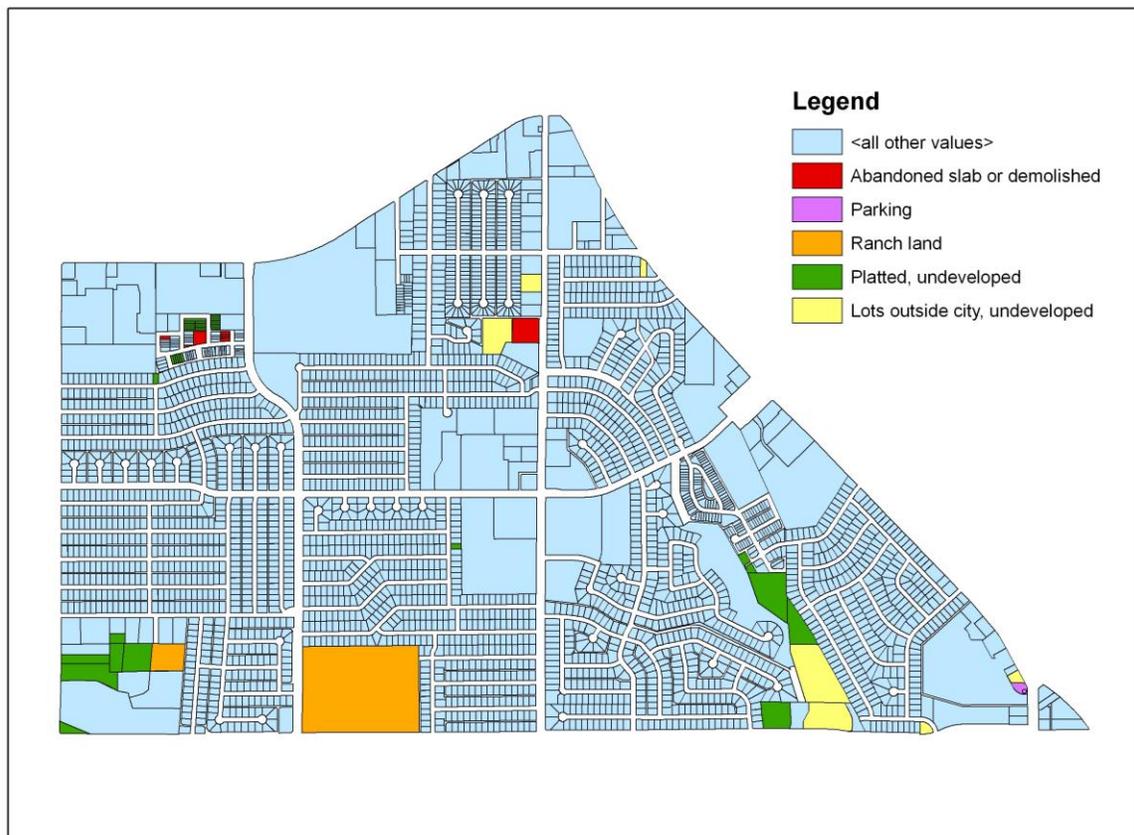


Figure 5.3: Vacant parcels

(Sources: Visual survey of study area and DCAD historical aerial photographs)

The vacant parcels shown in yellow are categorized by the Denton Central Appraisal District as “Lots Outside City” indicating that no taxes are being collected for

these parcels. Having these re-categorized could provide the City with additional property tax revenue.



Figure 5.4: A few vacant sites have remaining slabs that most likely need to be broken up



Figure 5.5: The largest vacant parcel in the study area located at the Northeast corner of the Bellaire and Valley intersection

Undeveloped Vacant Lands

The following lists undeveloped vacant lands within the study area. Under our proposal, these undeveloped vacant lands play a major role in shaping this neighborhood. For instance, the vacant lands behind the Main Valley Shopping Center are proposed to be related so that they can be integrated into the nearby shopping center and become a mixed zone. It should, however, be noted that not all vacant lands are developable. Some of the vacant lands are too small for them to be economically viable to develop (e.g. R20070), some of them have a hard concrete slab which makes site clearance more expensive and some of them are not incorporated into the city.

Table 5.1: List of Vacant Properties within Fox Avenue study area

Rnumber	Owner Name	Land Size (ft2)	Land Value	Market Value
R19850	LEWISVILLE US J/V	249,642	\$499,284	\$499,284
R122691	SAN DEV INC	152,242	\$304,484	\$304,484
R153204	LEWISVILLE US J/V	144,793	\$289,586	\$289,586
R35792	MULKEY MASON FUNERAL HOME	116,697	\$320,917	\$320,917
R20042	ROSENBAUM, STEVEN E & TAM	109,767	\$0	\$142,023
R148021	CARLSON, C E, JR	99,448	\$39,779	\$39,779
R122693	SAN DEV INC	97,400	\$194,800	\$194,800
R18258	MULKEY MASON FUNERAL HOME	94,259	\$259,212	\$259,212
R20048	MADDALENA, DAN & TRELIS	90,605	\$90,605	\$90,605
R153214	LEWISVILLE, CITY OF	85,769	\$64,327	\$64,327
R18270	GREER, DIANA & SCHOPPAUL,	65,340	\$49,005	\$917,063
R20052	WRIGHT, WILLIE D	64,164	\$32,082	\$32,082
R78881	MAY, DAVID C	45,000	\$135,000	\$135,000
R20050	JAAK LLC	43,386	\$43,386	\$43,386
R20070	BRAN-DAN P/S	22,738	\$109,142	\$109,142
R14251	LOPEZ, JORGE & MARIA K	21,963	\$56,526	\$120,501
R156261	ONE TWENTY ONE PZ LTD P/S	16,348	\$163,480	\$163,480
R19517	ONE TWENTY ONE PZ LTD P/S	16,117	\$120,878	\$120,878
R90243	BELLAH, DON & CAROL	14,444	\$14,444	\$14,444
R04806	HAEUSSLER, MARY ANN	12,709	\$57,826	\$57,826
R19919	LEWISVILLE CALGARY PARTNE	11,935	\$41,773	\$41,773
R257509	CITY OF LEWISVILLE	11,795	\$0	\$0
R77900	AFRIQUE INV INC	10,154	\$5,553	\$5,553
R257506	CITY OF LEWISVILLE	7,895	\$0	\$0
R03907	LEWISVILLE, CITY OF	7,130	\$23,743	\$23,743

R04947	LEWISVILLE, CITY OF	7,006	\$25,992	\$25,992
RI4103	AKBARI, NARGES	4,095	\$5,198	\$5,198
RI4056	SIMMONS, C T, II	3,675	\$10,574	\$10,574
RI4161	THORNLEY, WILLIAM M	3,675	\$4,988	\$4,988
RI4061	LEWISVILLE CITY	3,150	\$501	\$501
RI4166	THORNLEY, WILLIAM M	3,150	\$4,725	\$4,725
RI1824	AFRIQUE INV INC	2,440	\$983	\$983
RI1826	AFRIQUE INV INC	2,440	\$983	\$983
RI1827	AFRIQUE INV INC	2,440	\$983	\$983
RI1829	AFRIQUE INV INC	2,440	\$983	\$983
RI1831	AFRIQUE INV INC	2,440	\$983	\$983
RI1832	AFRIQUE INV INC	2,440	\$983	\$983
RI1833	AFRIQUE INV INC	2,440	\$983	\$983
RI1834	AFRIQUE INV INC	2,440	\$983	\$983
RI1836	AFRIQUE INV INC	2,440	\$983	\$983
RI1837	AFRIQUE INV INC	2,440	\$983	\$983
RI1817	AFRIQUE INV INC	2,100	\$945	\$945
RI1818	AFRIQUE INV INC	2,100	\$945	\$945
RI1819	AFRIQUE INV INC	2,100	\$945	\$945
RI1820	AFRIQUE INV INC	2,100	\$945	\$945
RI1821	AFRIQUE INV INC	2,100	\$945	\$945
RI1822	AFRIQUE INV INC	2,100	\$945	\$945
RI1823	AFRIQUE INV INC	2,100	\$945	\$945
RI4057	SIMMONS, C T, II	2,100	\$8,904	\$8,904
RI4060	SIMMONS, C T, II	2,100	\$8,904	\$8,904
RI4162	THORNLEY, WILLIAM M	2,100	\$4,200	\$4,200
RI4163	THORNLEY, WILLIAM M	2,100	\$4,200	\$4,200
RI4164	THORNLEY, WILLIAM M	2,100	\$4,200	\$4,200
RI4165	THORNLEY, WILLIAM M	2,100	\$4,200	\$4,200

(Sources: TAMU Visual Survey, Denton Central Appraisal District, January 2006)

Appraisal Ratios

Additional insight into the condition of residential housing as well as any possible economic conditions impacting home values can be evaluated by utilizing Denton County Appraisal District appraisal data. One method is to evaluate the ratios of land values to total appraised value. The following figure provides the ratio of land value to total value for residential properties in the sub-area on a lot-by-lot basis.

Prepared by:

Tom Li
Jon Toffer

Introduction

The ratio of land value to total value can also be utilized as an indicator for residential properties. The ratio acts as an indicator of two different factors, housing condition and market values. Properties that are well constructed and properly maintained will have lower ratios, as land values are a smaller portion of the total value. As the condition of the property improvements declines so does the appraised value and the land portion becomes a larger percentage of the total value.

Ratios under 28% indicate properties that are in good condition and receive appropriate maintenance. Properties with ratios between 28% and 34% suggest inappropriate levels of maintenance and possible deterioration. Values from 34% to 40% have low levels of maintenance and are beginning to experience redevelopment pressures. These are areas where expectations of non-residential land uses are developed. Properties with this ratio in existing neighborhoods begin to have detrimental impacts upon adjacent properties and the neighborhood as a whole. Areas with ratios over 40% are typically prime for redevelopment.

The other condition that these ratios indicate is that of market driven trends. Development of adjacent or area properties can have the affect of raising neighborhood land values. Even though site improvements may be in good condition and receiving appropriate maintenance it is possible for ratios to increase based upon ongoing development. It is important then to assess the condition of the properties to determine if housing conditions are declining or if the market is increasing land values. Increasing land values and higher ratios can indicate an area that has potential for redevelopment even though properties are well maintained.

From the appraisal data obtained from Denton County Appraisal District, we computed the property ratio using the land value and the roll value. The roll value is the

appraised total value and in most of the cases, its value is close to the market value. The following figures provide the ratio of land value to total value for single family homes in each sub-area on a lot-by-lot basis. One limitation we found with this method was the size of the lots being compared should be comparable. In general, the larger lot sizes tend to have higher land values resulting in a higher land to total value ratio despite the house being in good condition.

|

Sub-area I

Current Land Use

The land uses in this sub-area have been influenced by the commercial development along South Stemmons [Flyway Freeway](#). Most of the commercial activities are carried out along the Flyway with residential developments left behind the commercial sites. Because of the vicinity of commercial strip along South Stemmons [Flyway Freeway](#), home businesses are also common in this sub-area.

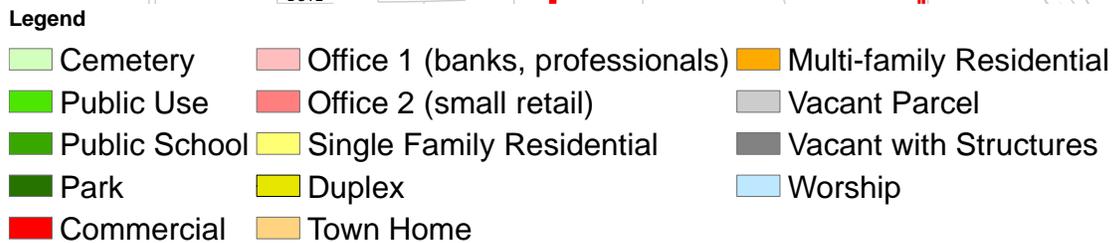
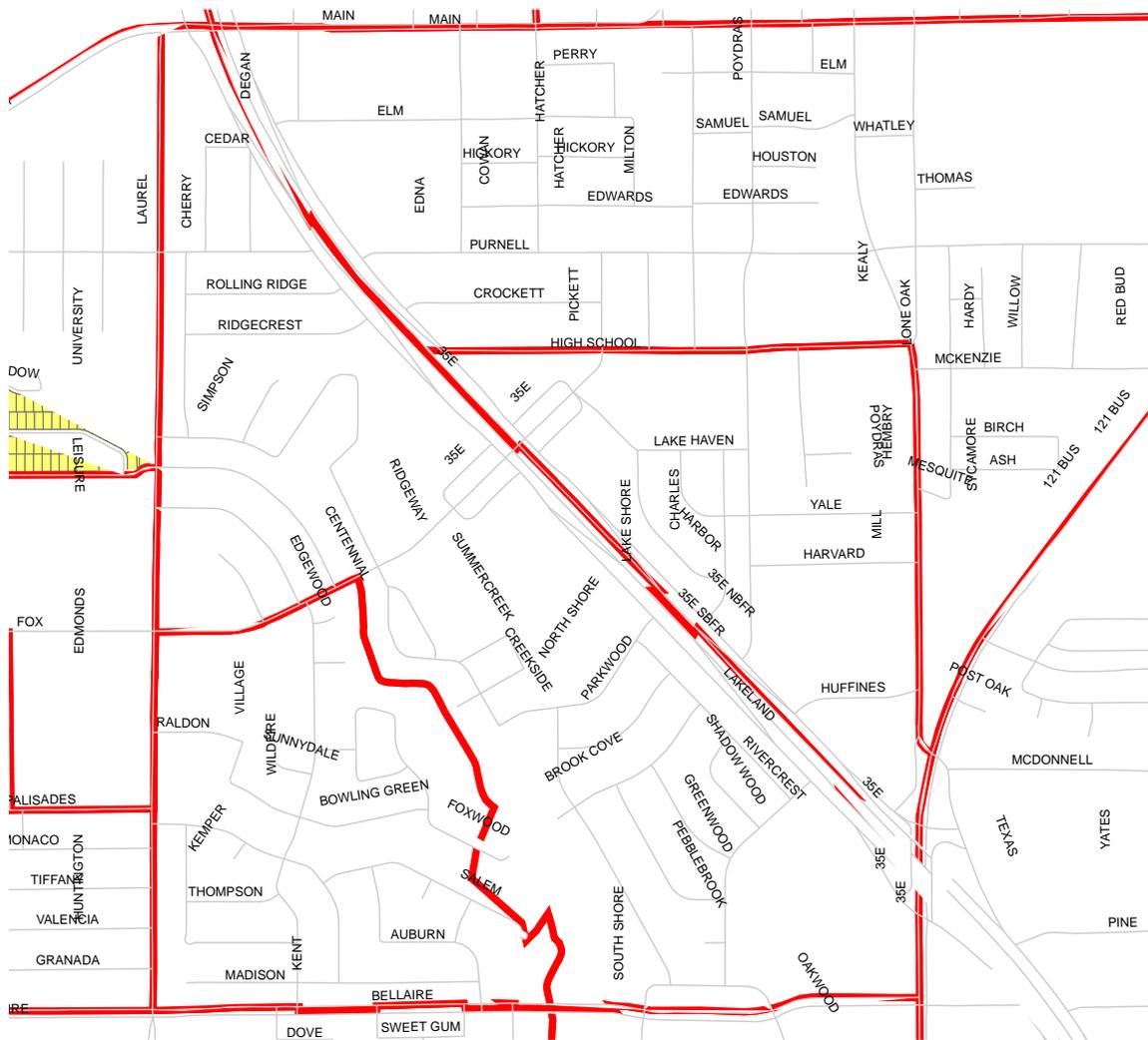


Figure 6.1: Current Land Use for Sub-area I

Property Ratios

Lots with lower percentages consist of properties where the land value is a smaller portion of the total value. The higher the percentage the higher the indication that additional repairs are needed and/or there is some type of pressure for the property to be used for higher density housing or commercial use. The average property ratio for sub-area I is 27% which indicates that the properties are properly well

maintained and are not experiencing pressure for redevelopment. However, if examined closely for each parcel, there are two pockets where the residential property ratios fall between 28% and 34%. One is located close to the north tip of this sub-area and the other is located close to the east tip. These properties may invite special attention to avoid further deterioration. The comparatively higher property ratios may be explained by the fact that these two areas are closer to the commercial district and thus the land price is driven up accordingly. There are also two parcels in this sub-area where the residential property ratio is above 40%. The one on the right side is mainly due to the exceptionally high land price when compared to the adjacent properties. The one on the left side is an affordable house and thus the total value is comparatively less than the adjacent properties.

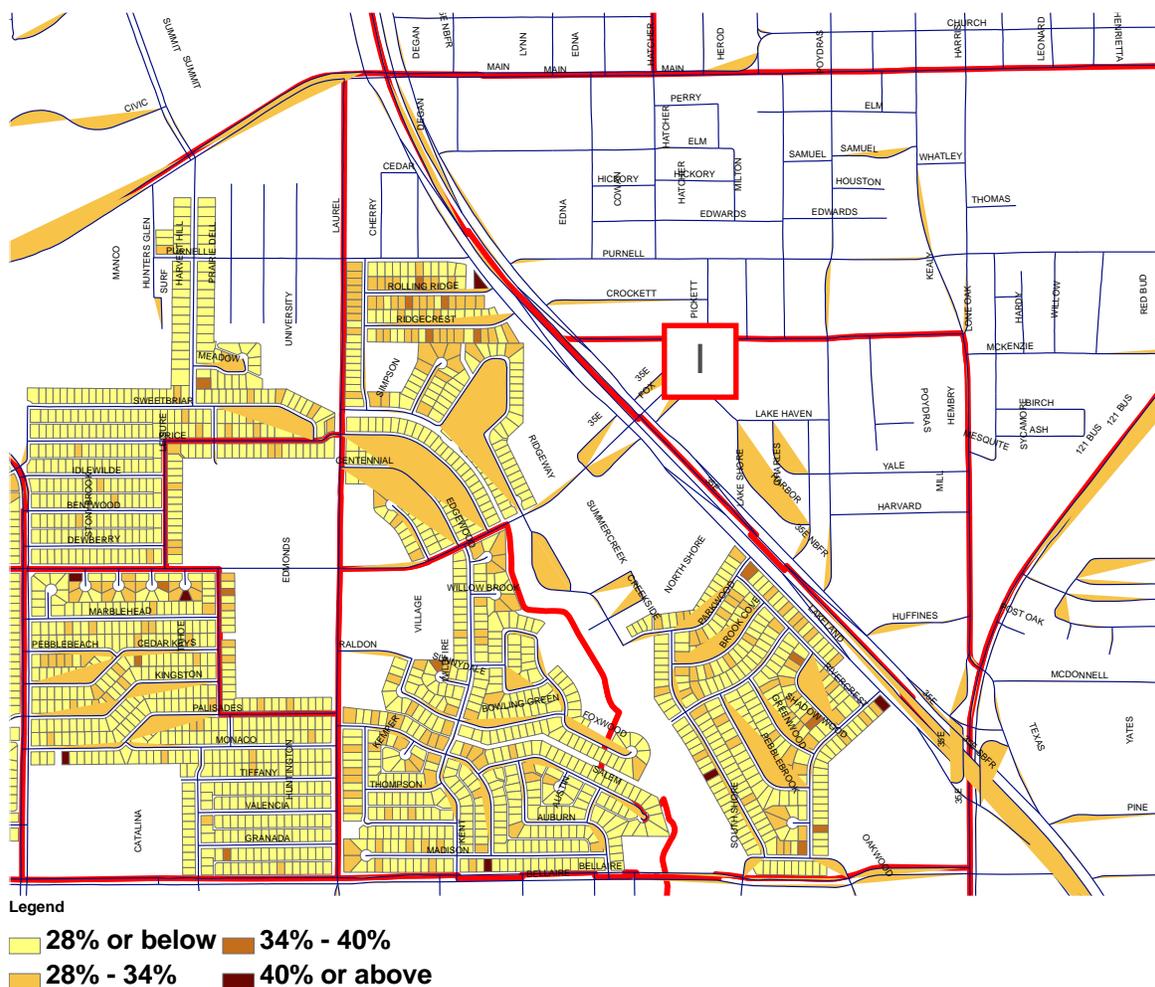


Figure 6.2: Residential Property Ratios for Sub-area I

Sub-area 2

Current Land Use

The predominant land use for this sub-area is residential. There is an elementary school located at the corner of Fox Avenue and Edmonds Lane. There are also two parks available for recreational use. One park shares the same site as the elementary school and the other park is located at the east part of the sub-area and separates the residential houses-detached homes from the town homes in sub-area 1.

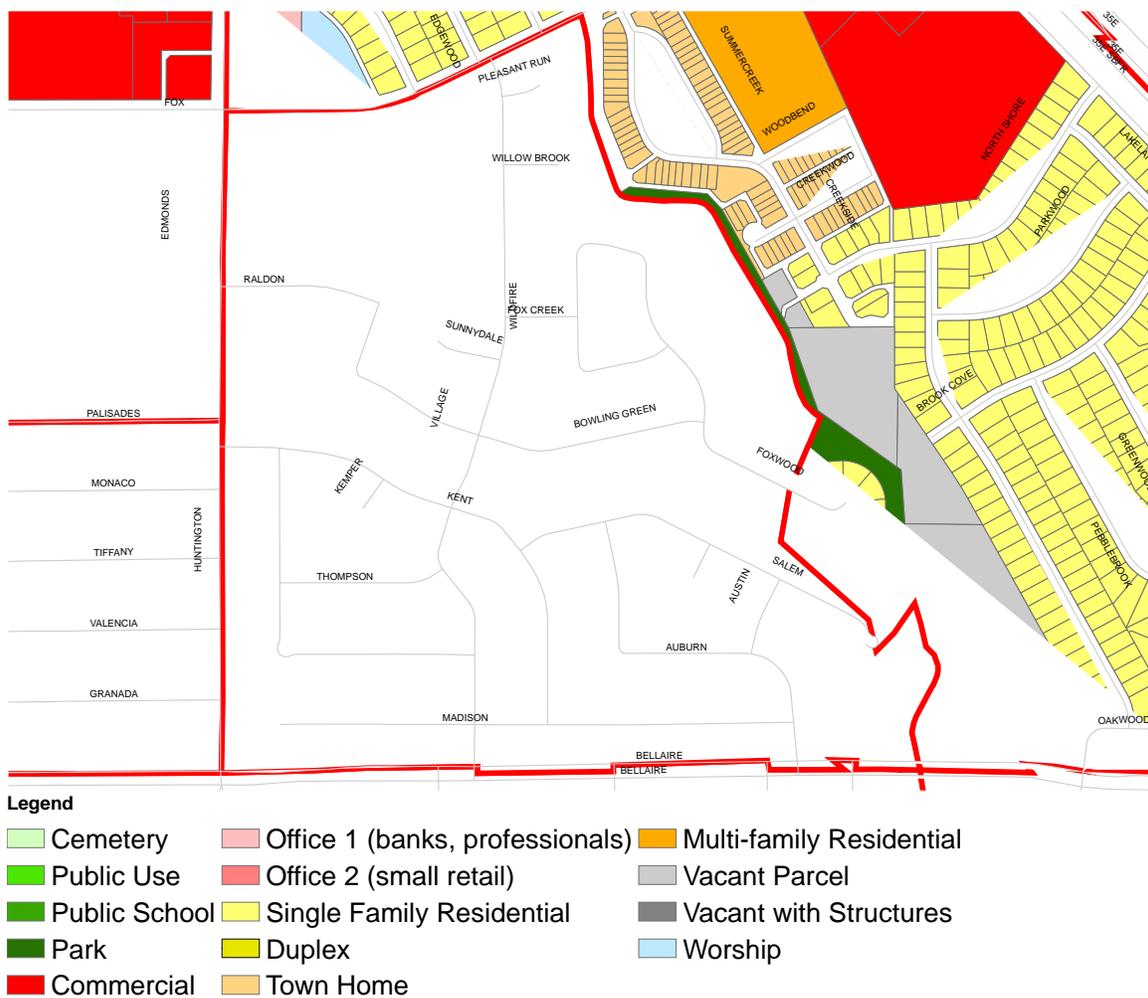


Figure 6.3: Current Land Use for Sub-area 2

Property Ratios

The average property ratio for this sub-area is 25%. The vast majority of ratios of land value to total value are below 28% for this sub-area. In other words, all the residential properties are probably in pretty good condition. One parcel with residential property ratio above 40% is identified. This is most likely due to a large difference between the appraised total value and the market value of the property. As the appraised total value is well below the market value of the property, this drives up the residential property ratio.

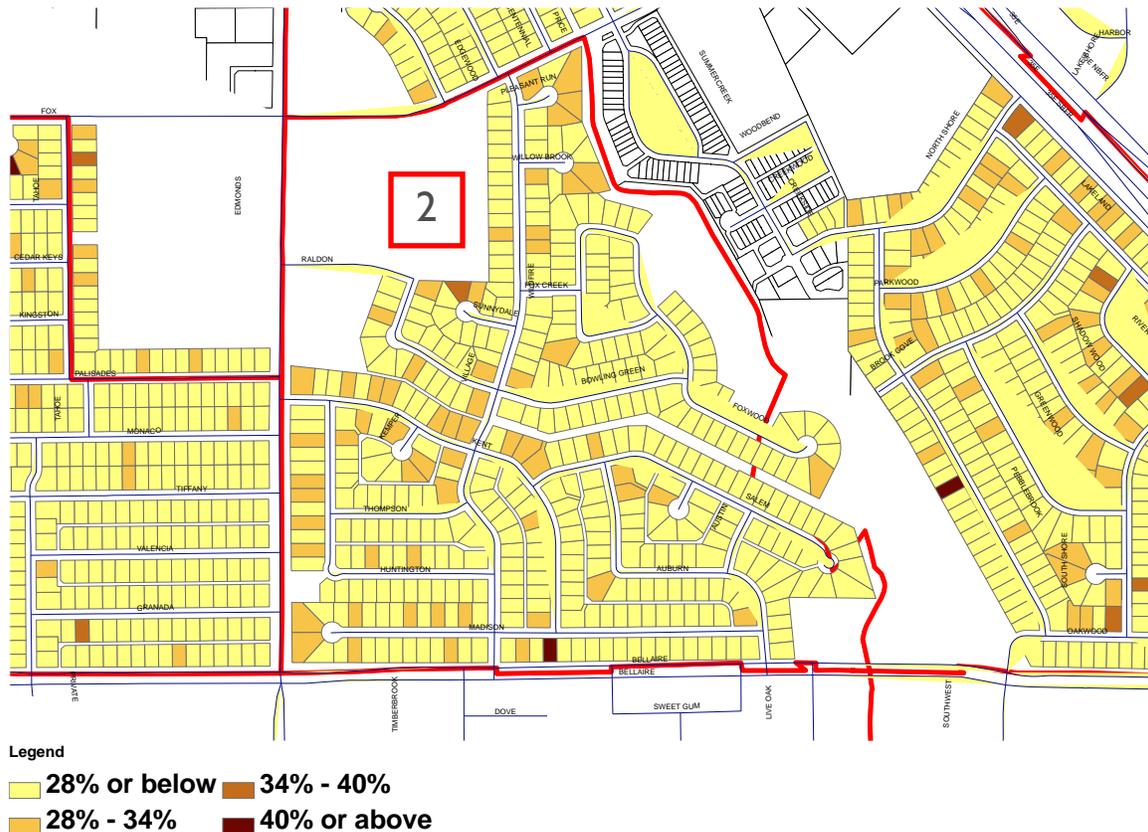


Figure 6.4: Residential Property Ratios for Sub-area 2

Sub-area 3

Current Land Use

This sub-area is predominantly occupied by residential neighborhoods. However, home businesses are occasionally found in this sub-area. These home businesses scatter all over the sub-area and do not appear to show a regular pattern. There is also a big plot of land which is designed as ranch use in this sub-area.

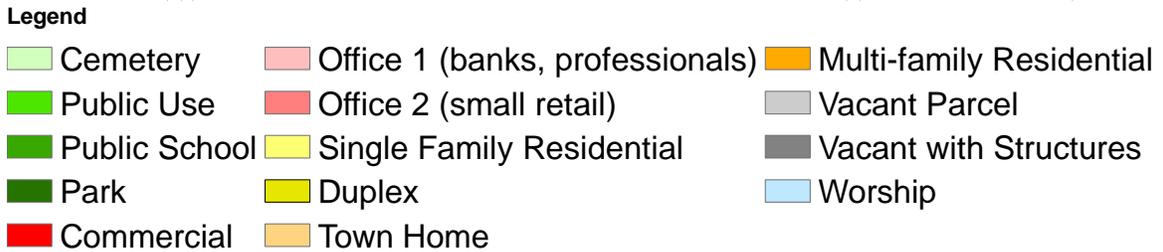
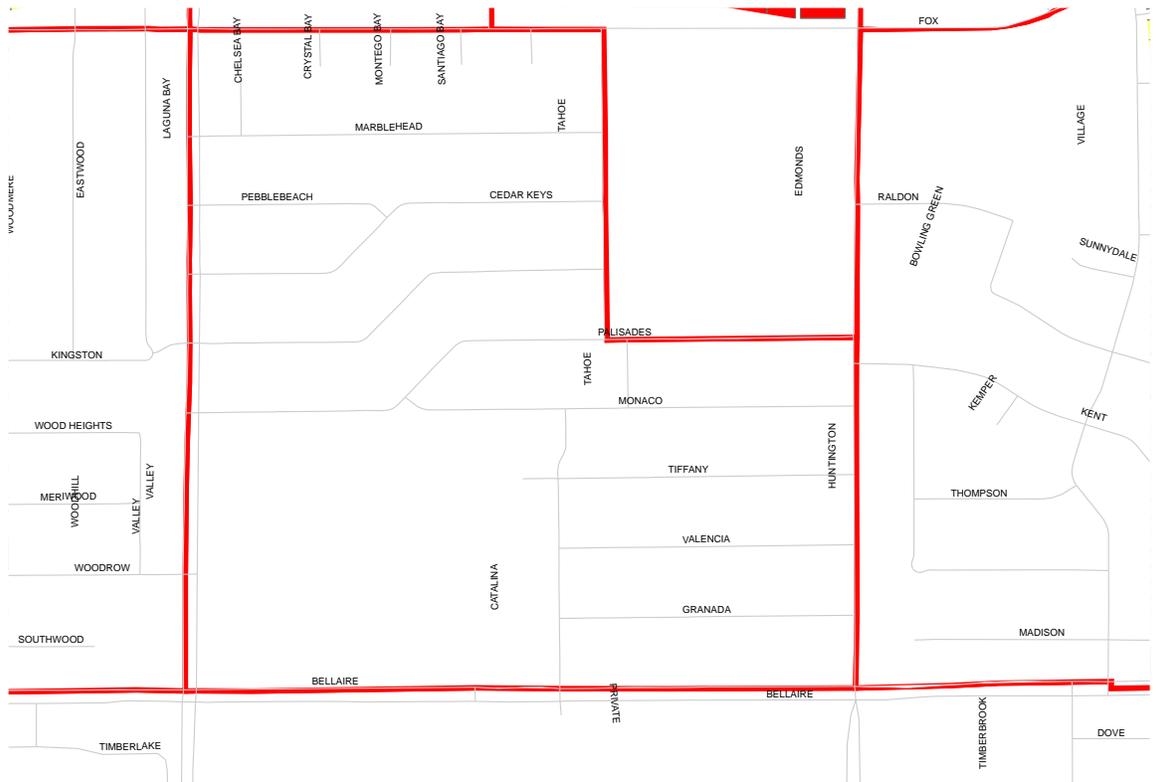


Figure 6.5: Current Land Use for Sub-area 3

Property Ratios

On average, the property ratio in this sub-area is 25%. However, those properties located in the cul-de-sacs generally have a residential property ratio between 28% and 34%. The property ratio is higher because the lot sizes for these parcels are comparatively larger and thus the land values are higher than the adjacent parcels where the lot sizes are smaller. Those two parcels with property ratios above 40% may indicate that the land owners have not fully utilized their lands and thus the total values are not worth as much as the adjacent parcels. The above observations thus indicate a problem associated with the property ratio. In order to make a meaningful comparison of property ratios, the lot sizes should be uniform. Otherwise, the ratio will be distorted and a meaningful comparison is not possible.

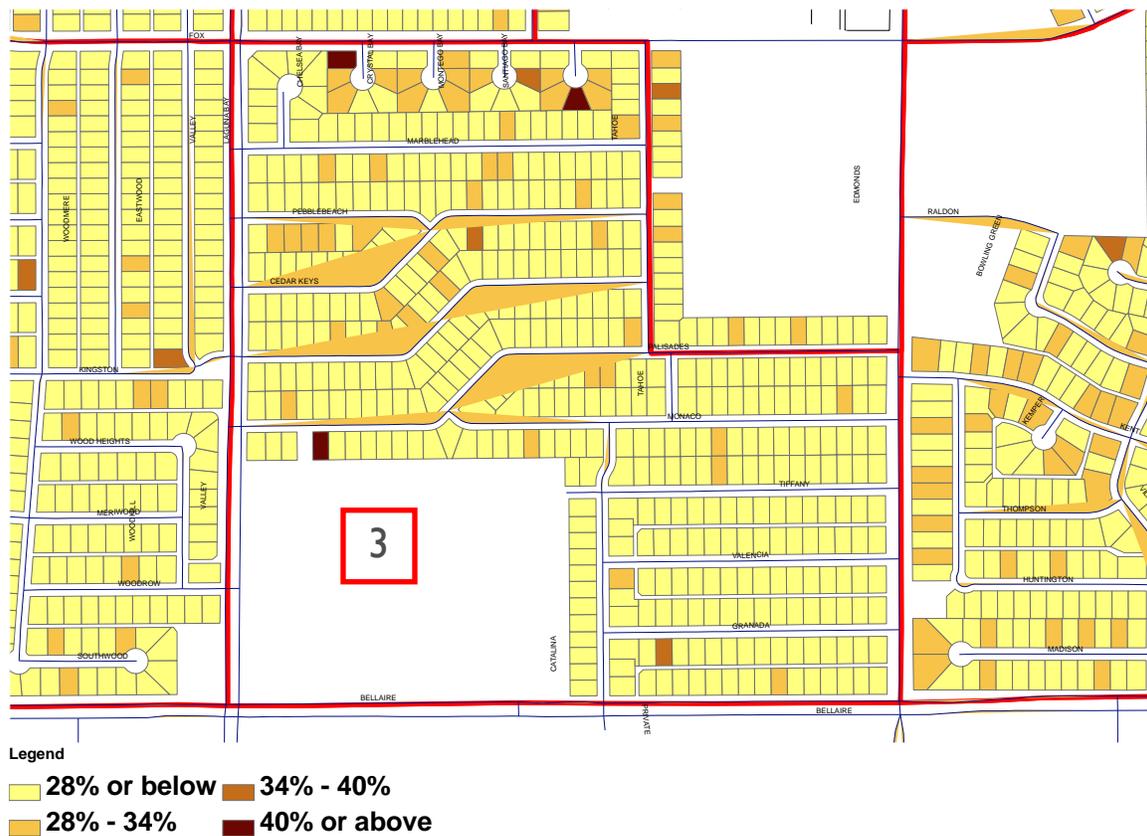


Figure 6.6: Residential Property Ratios for Sub-area 3

Sub-area 4

Current Land Use

This sub-area is also predominantly occupied by residential neighborhoods. Home businesses are also found in this sub-area. They scatter all over the sub-area and do not appear to show a regular pattern. There is a big plot of multi-family development in this sub-area. It is located at the southwest corner of the sub-area. It is located at the southwest corner of the sub-area. There is a church located just next to the multi-family development too. It is worth to note that a cemetery is found on Kingston Dr., just one block behind the junction of Old Orchard Rd with Kingston Dr.

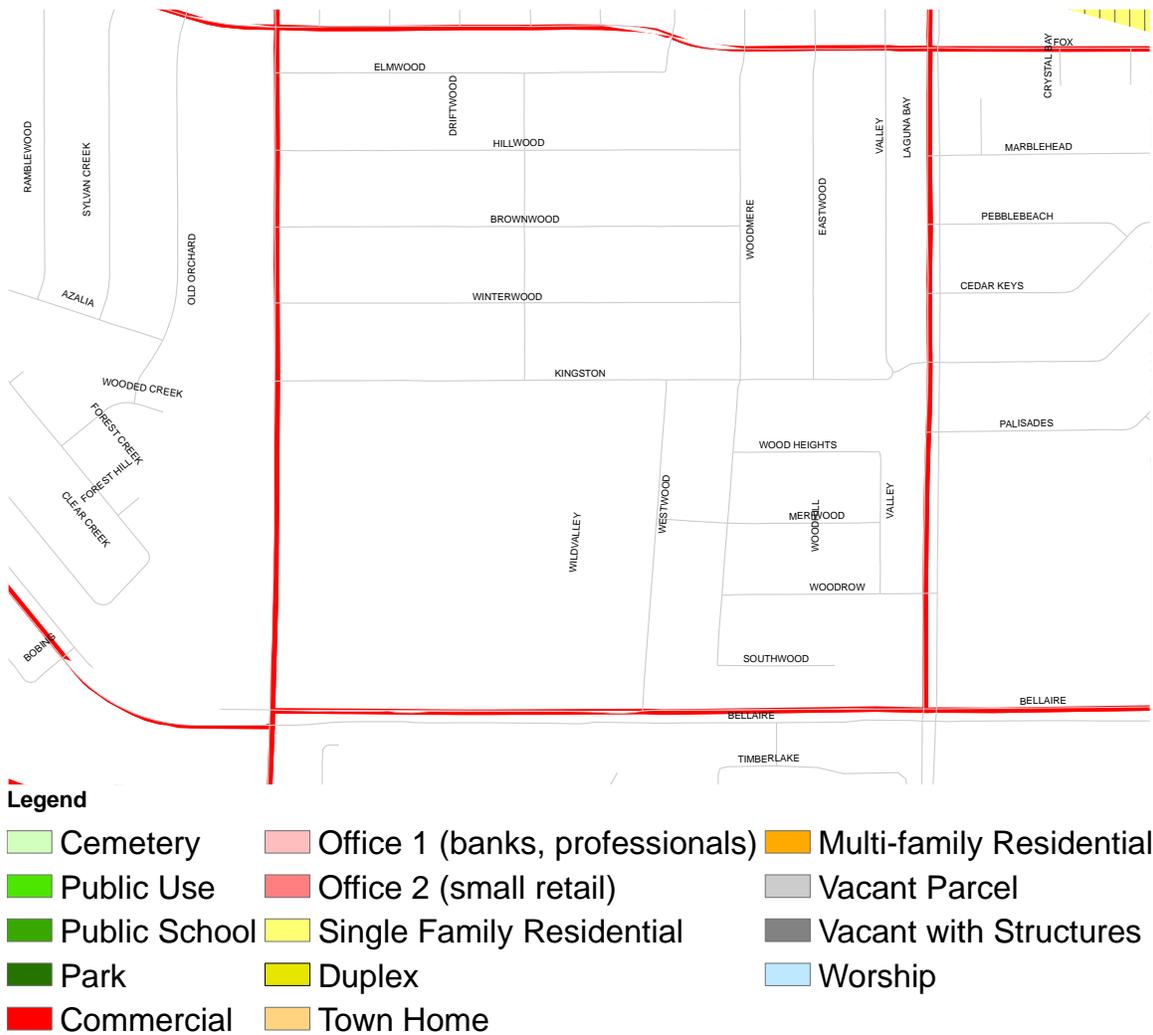


Figure 6.7: Current Land Use for Sub-area 4

Property Ratios

Again, the average property ratio in this sub-area is 25%. However, there are scattered parcels with comparatively higher residential property ratios. Again, explanation may be that those landowners have under-utilized their land and thus the total values are not worth much as the adjacent parcels. On-site observations from the house condition survey do not suggest that the properties on these parcels are in poor condition.

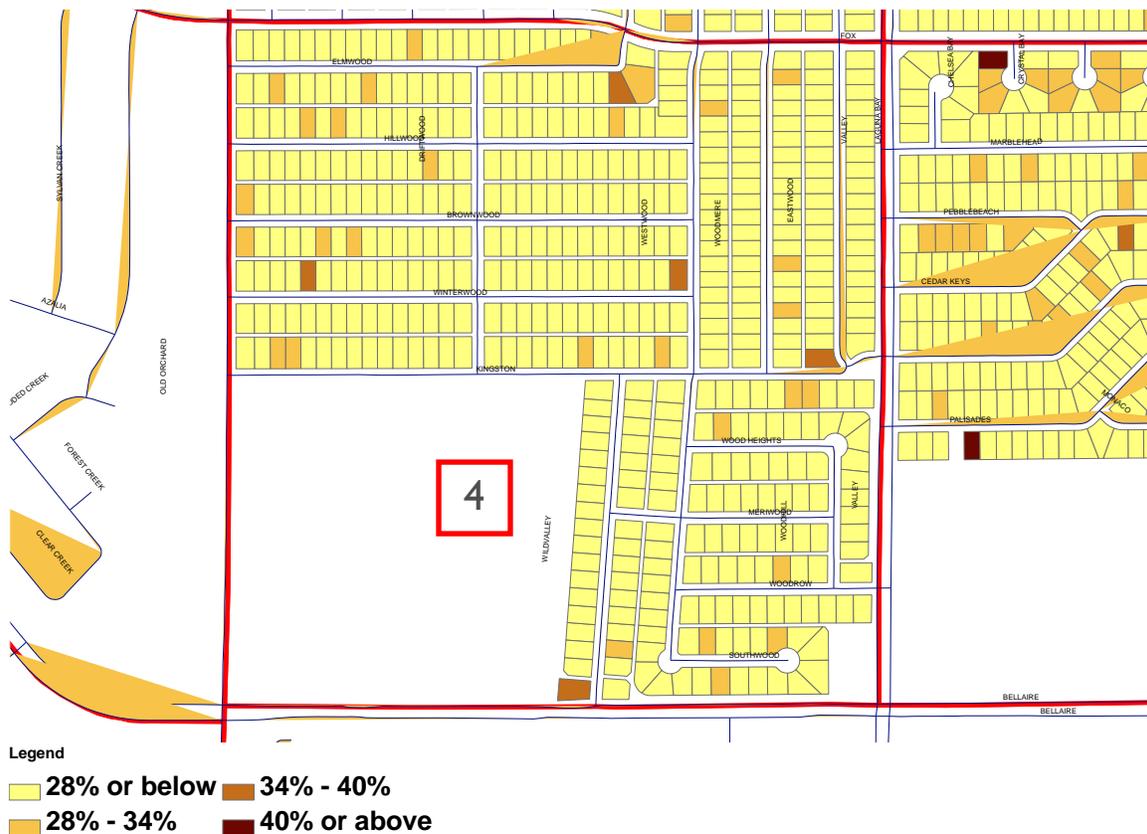


Figure 6.8: Residential Property Ratios for Sub-area 4

Sub-area 5

Current Land Use

This sub-area is a mixture of single family homes, multi-family apartment, commercial and office use sites. Residential development mainly concentrated on the lower half of this sub-area. There is one multi-family development. It is located on South Old Orchard, at the west middle part of the sub-area. It is worth noting that the town

homes behind the commercial sites are generally poorly maintained and some of them have already been torn down due to structure fires.

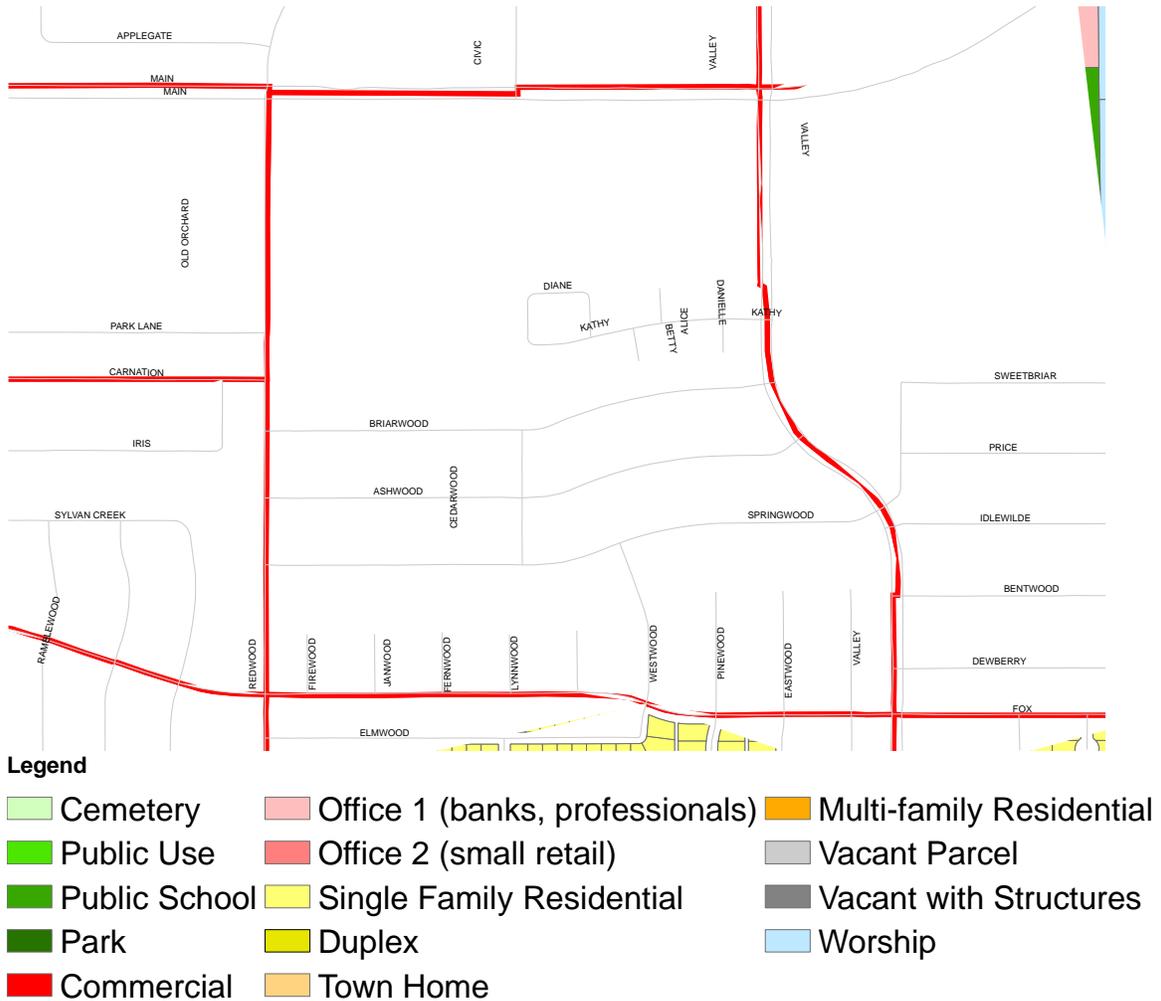


Figure 6.9: Current Land Use for Sub-area 5

Property Ratios

The average property ratio in this sub-area is 26%. This indicates that the residential properties in this area are well-maintained. Parcels at the corner of the street are generally irregular in shape and have bigger parcel sizes. Even though the parcel size is larger than the adjacent parcels, the usable land area available for development still is kept approximately the same. Therefore, the individual residential property ratio may be higher for those parcels located on the corner of the street.

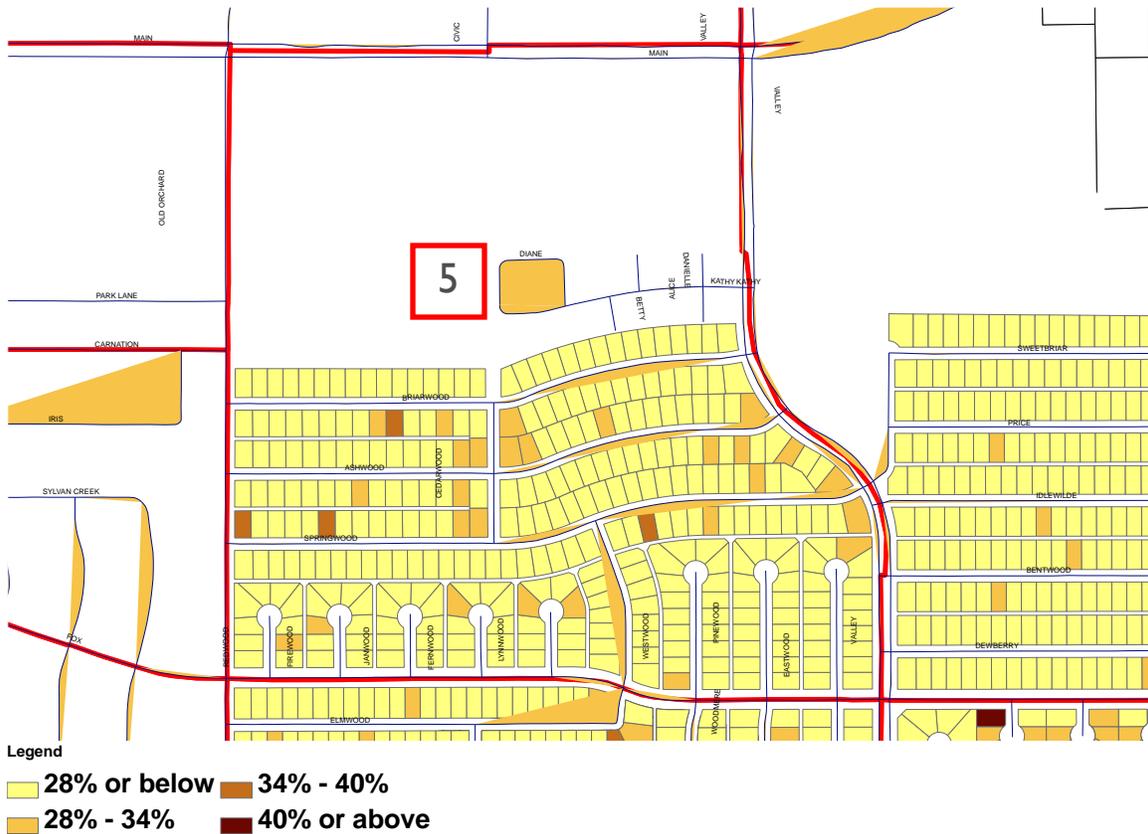


Figure 6.10: Residential Property Ratios for Sub-area 5

Sub-area 6

Current Land Use

This sub-area is well-mixed with single family homes, duplexes, school, park, commercial and office use sites. Residential development mainly concentrated on the lower half of this sub-area. There is one multi-family developments located on South Edmonds. Commercial businesses flourish along West Main Street and South Edmonds Street. There are big shopping centers in this sub-area. They are mainly concentrated at the northeast tip of this sub-area. A high school can also be found at the northwest tip of this sub-area. The aquatic park is just next to the high school.

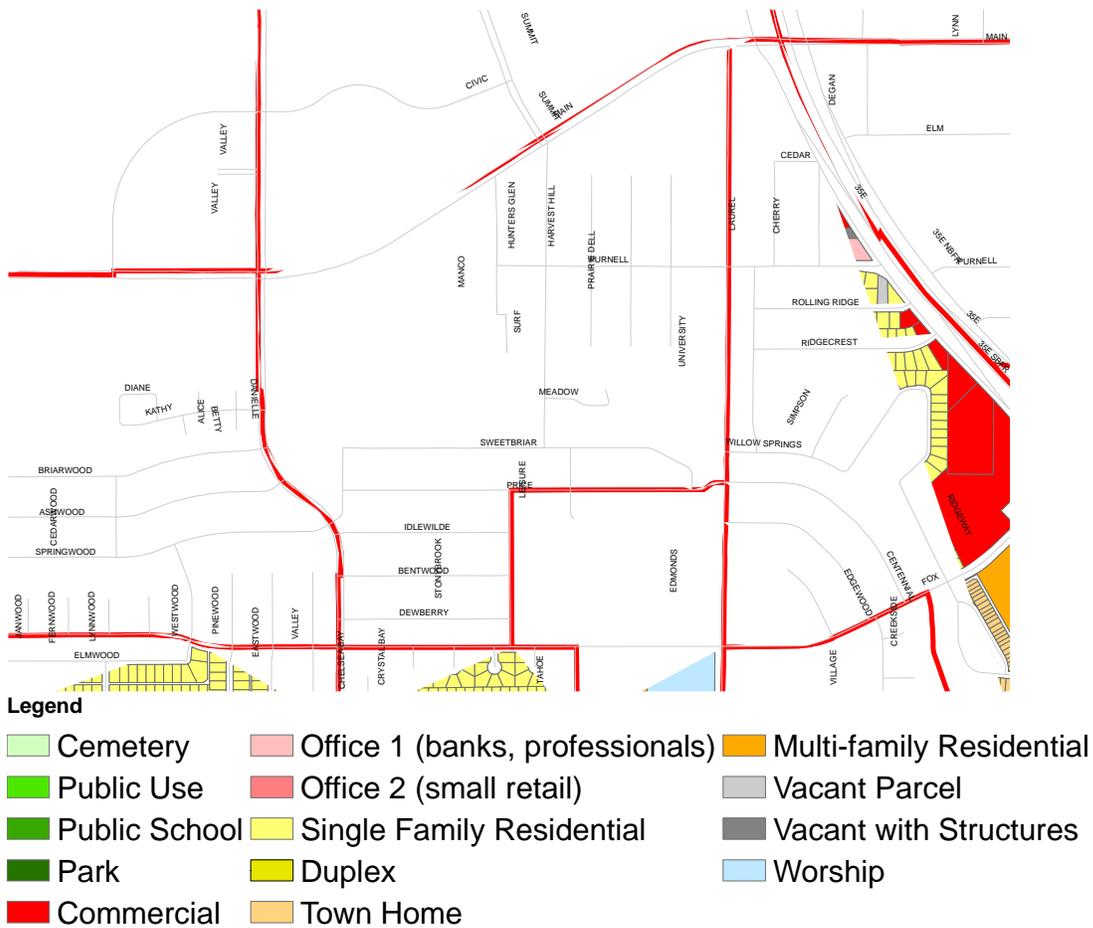


Figure 6.11: Current Land Use for Sub-area 6

Property Ratios

The average property ratio in this sub-area is 24%. This sub-area has the lowest average property ratios among the seven sub-areas. Although individual parcels with higher property ratios are identified in this sub-area, they are relatively few and scattered evenly throughout this sub-area. They may be explained by variations in the degree of improvement made to the properties.

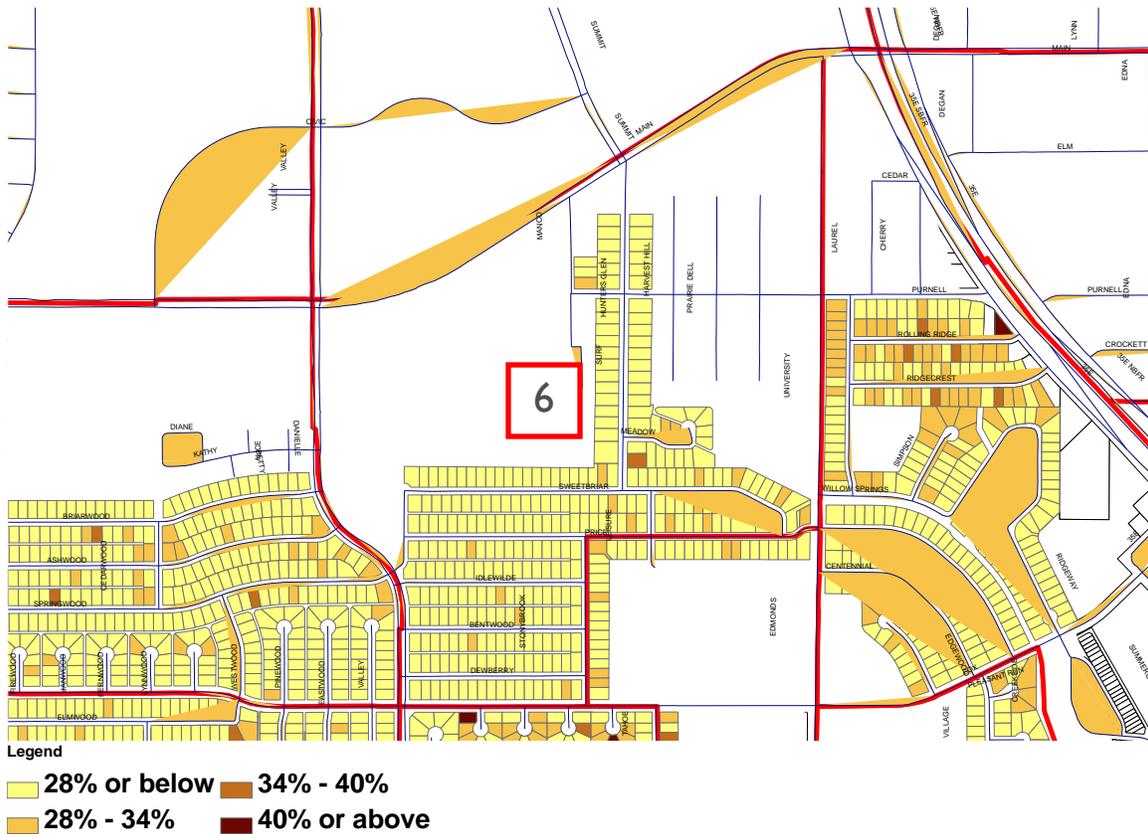
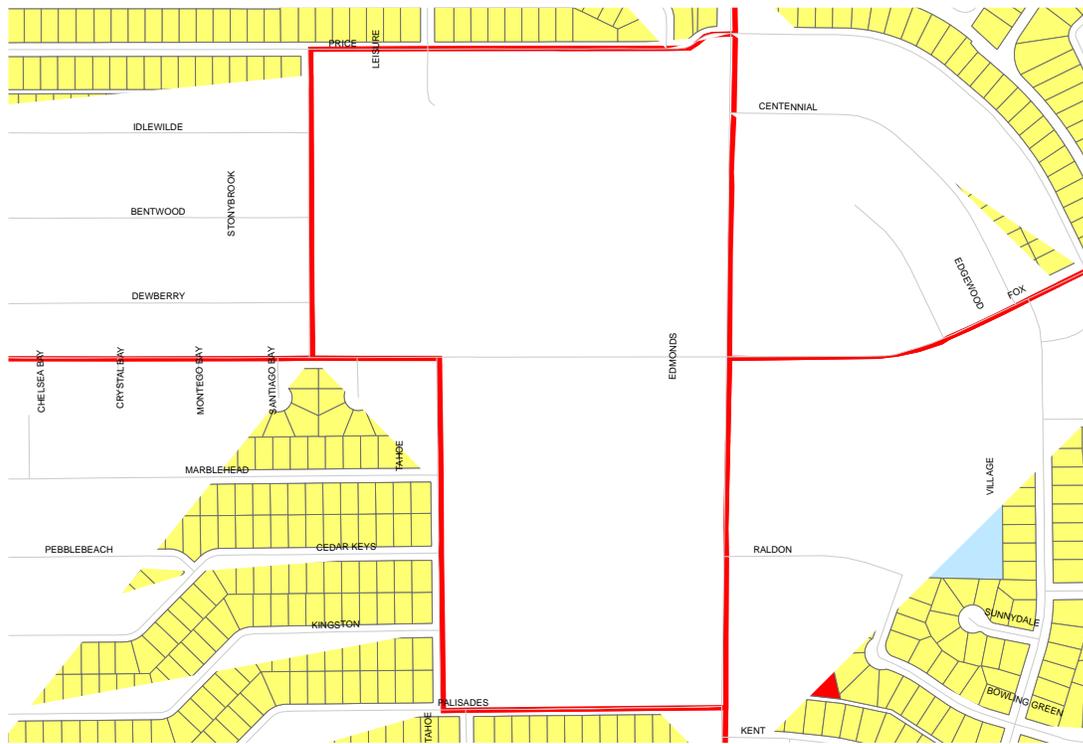


Figure 6.12: Residential Property Ratios for Sub-area 6

Sub-area 7

Current Land Use

There are two big multi-family apartments in this sub-area. A row of single family homes can be found surrounding these two big multi-family apartments. The core of sub-area consists of a supermarket and two shopping centers. Based on our observation, the businesses appear to do exceptionally well in this sub-area. The parking lots in the shopping centers are always full with a lot of pedestrian activities. Nevertheless, the commercial buildings are poorly maintained and the parking conditions are bad which may pose problem to this sub-area in the long run.



Legend

- | | | |
|---|---|--|
| Cemetery | Office 1 (banks, professionals) | Multi-family Residential |
| Public Use | Office 2 (small retail) | Vacant Parcel |
| Public School | Single Family Residential | Vacant with Structures |
| Park | Duplex | Worship |
| Commercial | Town Home | |

Figure 6.13: Current Land Use for Sub-area 7

Property Ratios

The average property ratio in this sub-area is ~~28% which is~~ marginally below 28%. This still indicates that the residential properties in this area are well-maintained. Because the number of residential properties in this sub-area is fewer than the adjacent sub-area, the average property ratio is easily affected by the property ratio of the individual property. Nevertheless, the residential properties in this sub-area are still in good condition and should not be a particular concern.

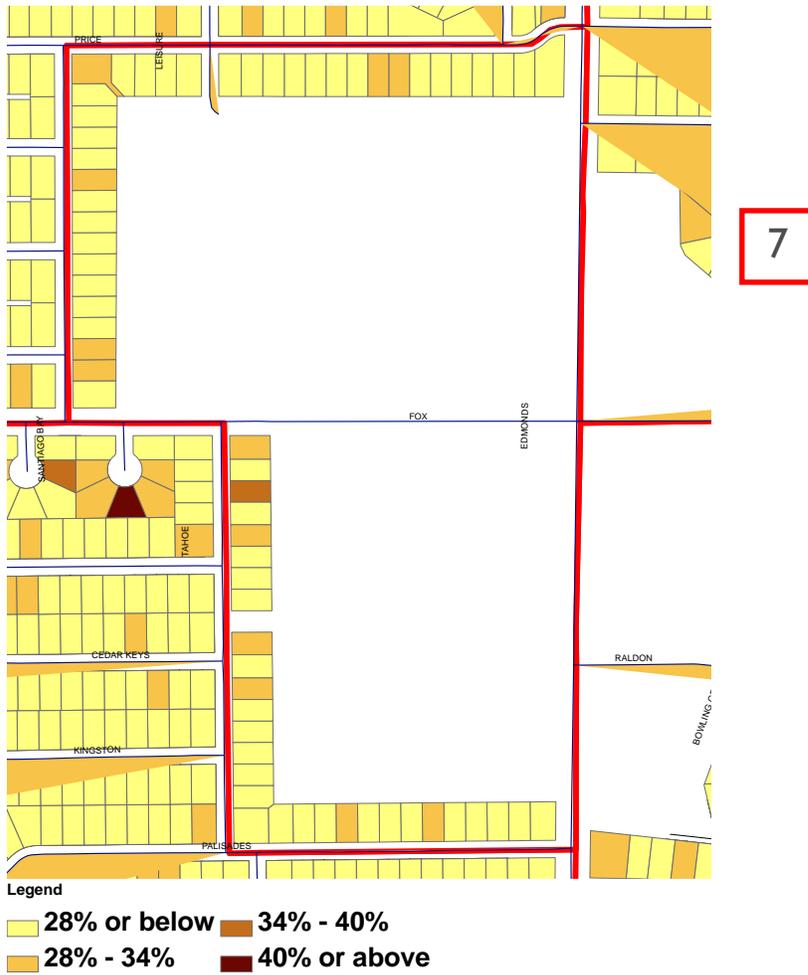


Figure 6.14: Residential Property Ratios for Sub-area 7

Code Enforcement

Zoning ordinances or codes are enacted by city government to help ensure the health, safety, general welfare and morals of the city. With adequate data, code violations in neighborhoods or residential areas can provide an early indicator for the decline of not only the residential areas but also the local shopping centers.

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According to the City of Lewisville's Code Enforcement division, there are currently five fulltime code enforcement officers. They are responsible for compliance with all codes and ordinances throughout the City of Lewisville. They respond to a variety of violations concerning the following:

- Fire codes
- Health and safety
- Illegal dumping
- Livestock
- Parking
- Sanitation
- Weeds and grass
- Zoning violations

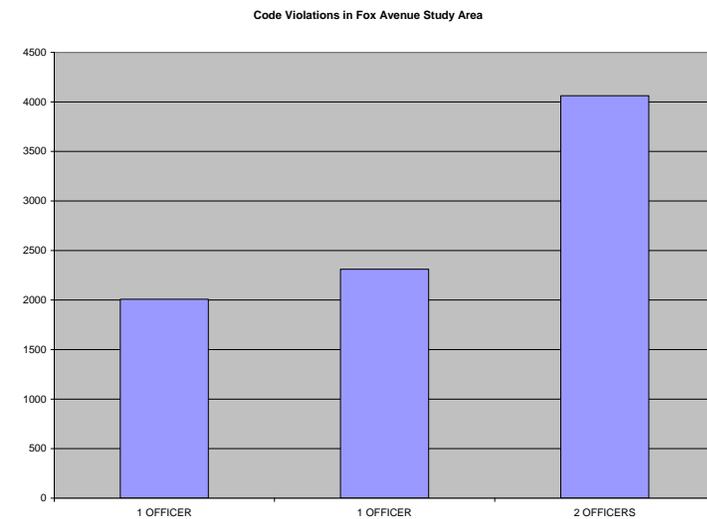
The City of Lewisville's most common code violation is for weeds and grass. Vacant parcels of land are restricted from having grass that is more than twelve inches in height. Code enforcement pursues the owners of these vacant parcels for compliance; if owners are unresponsive to code enforcement efforts, the City of Lewisville will take action and mow the grass but will charge the land owner for time and service.

Within the Fox Avenue study area the code violation analysis is limited to only data from FY2003 and FY2004 due to the incomplete FY2005 data provided. In Table 1.6.1 and Figure 1.6.1 it can be seen that the number of total code violations within the Fox Avenue study area increased by slightly more than 15% between FY 2003 and FY 2004.

Table 7.1: Code violations per year in Fox Avenue study area

PERIOD	OFFICERS PATROLLING	TOTAL CODE VIOLATIONS	% INCREASE
FY 2003 (Oct 2002-Sept 2003)	1 OFFICER	2007	--
FY 2004 (Oct 2003-Sept 2004)	1 OFFICER	2311	15.1%
FY 2005 (Oct 2004-Sept 2005)	2 OFFICERS	4062	75%

(Source: Neighborhood Integrity Program Software (NIPS) database, 2005)



Because of the incompleteness of data, code violation analysis based only on two years of records will not be sufficient to base any strong conclusions from. Therefore, it is suggested that code violation analysis to be conducted again at a future time when more data is available.

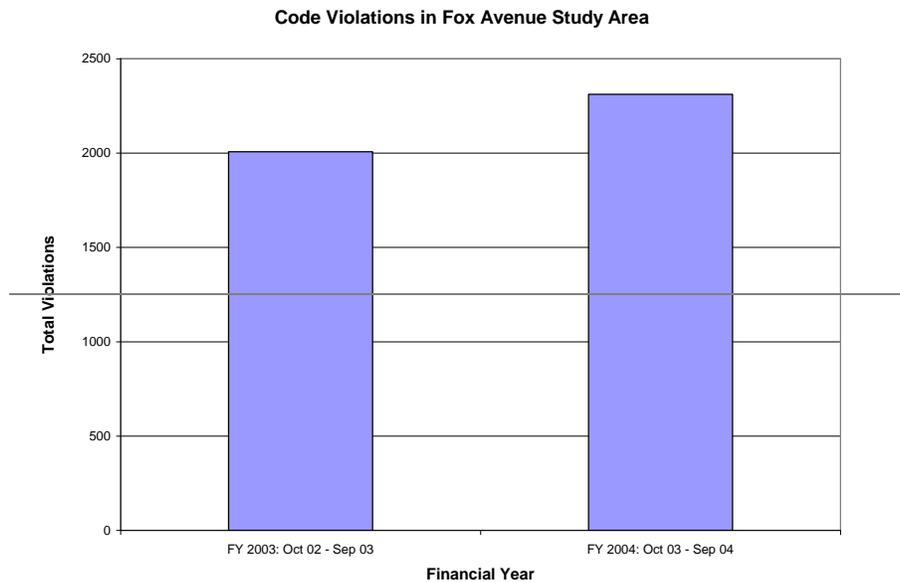


Figure 7.1: Total Annual Code Violations in Fox Avenue Study Area

(Source: City of Lewisville Neighborhood Integrity Program Software, 2005)

~~The FY 2005 data we received from the code enforcement data is suspected to be incomplete due to a three month gap in data. According to the Code Enforcement department there was an unfortunate loss of data due to an equipment malfunction that deleted several months of data. From comparison with FY2003 and FY2004 data the only month from FY2005 that has a comparable number of reported violations is November 2004. All other months in FY2005 have surprisingly low numbers of violations reported. Therefore it is not advised to use the FY 2005 data for any analysis of annual code violations. One code officer worked the study area from 2002 to 2004, another officer was added for the fiscal year 2004-2005.~~

In February 2005, The Office of Economic Development presented code violation data within specific subdivisions to evaluate the relationship between declining neighborhood condition and shopping center decline. The assumption appears to be that increased code violations indicate a declining neighborhood which will in turn cause shopping centers to decline. The number of code violations within two residential areas was analyzed to see if this condition might be impacting the conditions of the shopping centers. While figure 1.6.2 shows that the Lakewood/Westlake subdivisions had a 5.2% increase in the total number of violations from FY 2003 to FY2004, it is difficult to make

any substantial conclusions from this limited data. Without having historical data for the shopping center it is difficult to say what degree of impact increased code violations in a neighborhood might have on the local shopping centers. Without more annual code violation data it is difficult to establish whether this data represents a stable condition or an increasing trend. The strongest conclusion from this data is that continued code enforcement is necessary in these parts of the City to keep buildings and surroundings up to city standards.

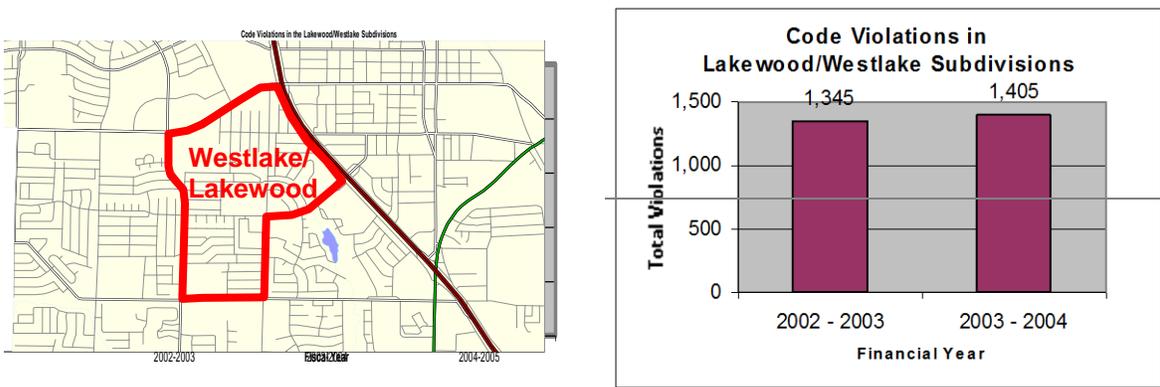


Figure 7.2: Code violations in Lakewood and Westlake subdivisions

(Source: Targeted Redevelopment Presentation, February 2005)

Crime

Crime statistics can provide insight into the vitality of a neighborhood and its local shopping centers. Neither residents nor businesses want to reside in an area with high crime rates, especially violent crimes. The City of Lewisville has very low rate of violent crimes.

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Crime in Lewisville

The 2004 FBI Crime Report provides crime data from municipalities and a national average based on common categories. The data from the 2004 FBI Crime Report presented in the figure below reveals that despite the overall crime index for the City of Lewisville being 16.6% greater than the national average, the city's index for violent crime (205.5) is well below half the national violent crime index (465.5).

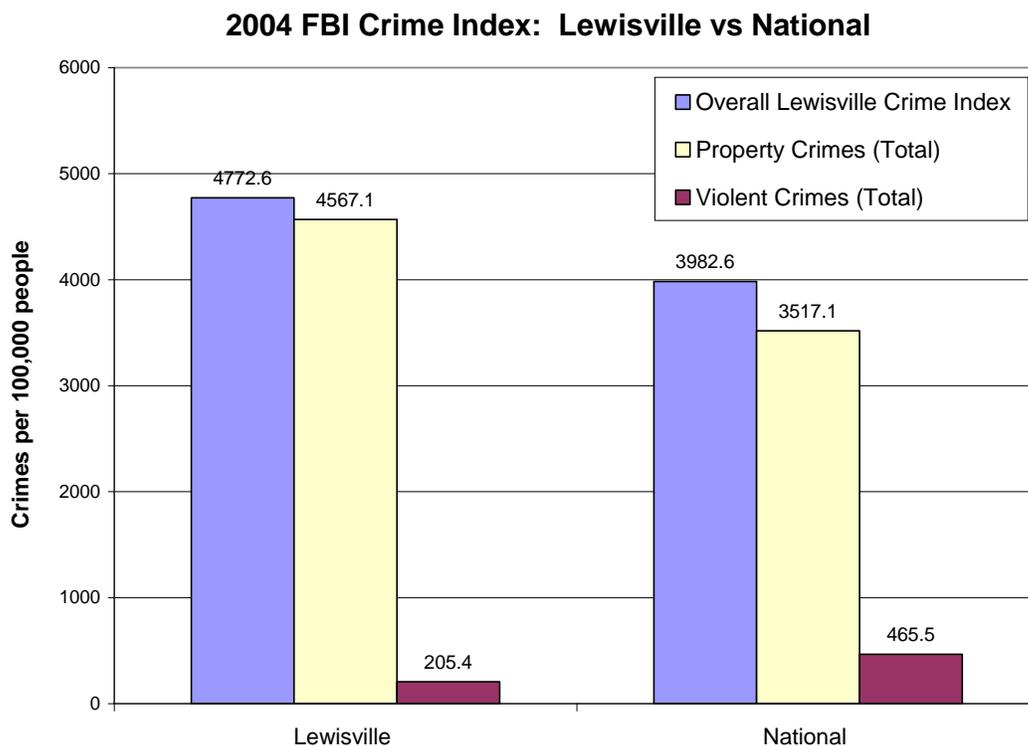


Figure 8.1: 2004 FBI Crime Index Comparison

(Source: 2004 FBI Crime Report)

In 2004, the National Crime Index was 3982.6 per 100,000 people while the city's crime index was 4772.6 per 100,000 people. In terms of violent crimes there were only 205.4 per 100,000 people in Lewisville which is less than half the national average of 465.5 per 100,000 people. The main factors contributing to the higher crime index in

the city are larceny/theft and motor vehicle thefts as can be seen in the figure and table below shows the crime statistics for the city compared to the national rate.

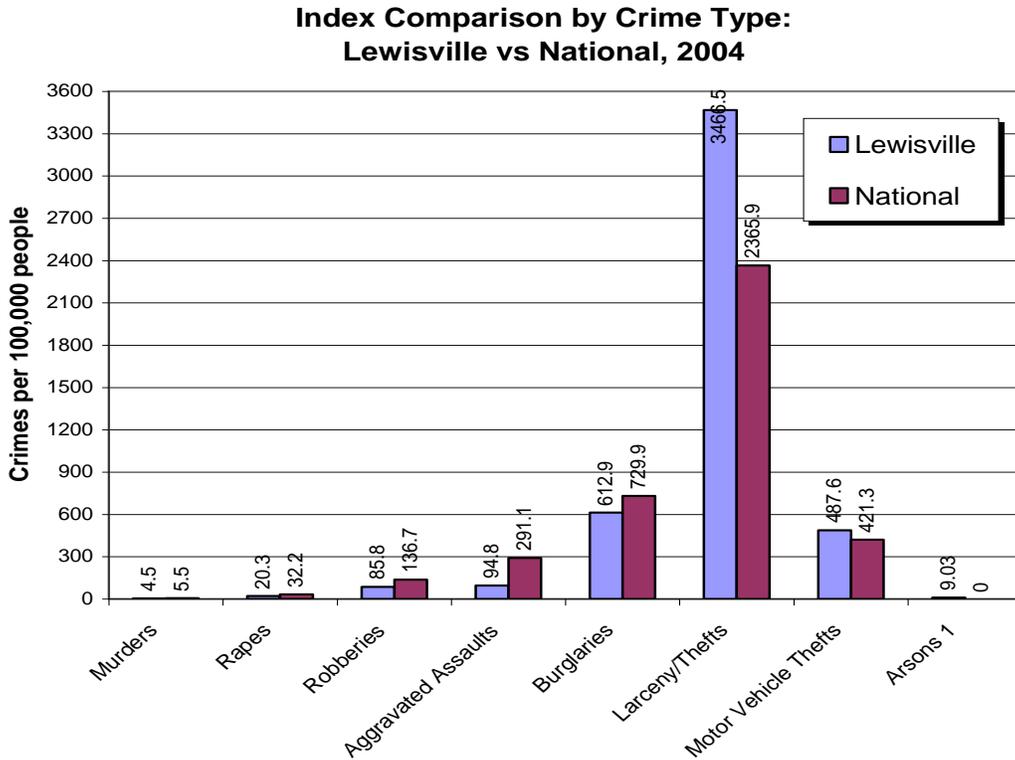


Figure 8.2: Comparison of 2004 Crime Indices by Category

(Source: 2004 FBI Crime Report)

Table 8.1: 2004 Crime Statistics

Crime Type	Crime Incidents	Crimes per 100,000 People	
		Lewisville	National
Overall Lewisville Crime Index	4228	4772.6	3982.6
Violent Crimes (Total)	182	205.4	465.5
Murders	4	4.5	5.5
Rapes	18	20.3	32.2
Robberies	76	85.8	136.7
Aggravated Assaults	84	94.8	291.1
Property Crimes (Total)	4046	4567.1	3517.1
Burglaries	543	612.9	729.9
Larceny/Thefts	3071	3466.5	2365.9
Motor Vehicle Thefts	432	487.6	421.3
Arsons I	8	9.0	N/A

(Source: 2004 FBI Crime Report)

Crime data for Lewisville from 2000 to 2003 (in Table I) shows that crime levels have remained relatively steady. This data presents a comparatively 'safe' picture of the city which means the city is attractive for existing residents.

Table 8.2: Crime in Lewisville – 2000 – 2003

Type	2000	2001	2002	2003
Murders	1	0	4	3
per 100,000	1.3	0	5.1	3.9
Forcible Rapes	28	20	41	15
Per 100,000	36	25.7	52.7	19.3
Robberies	46	58	69	49
Per 100,000	59.2	74.6	88.8	63
Assaults	93	111	97	104
Per 100,000	119.6	142.8	124.8	133.8
Burglaries	472	477	617	611
Per 100,000	607.2	613.6	793.7	786
Larceny counts	2,375	2,572	2,950	2,952
Per 100,000	3055.2	3308.6	3794.8	3797.4
Auto thefts	301	360	453	432
Per 100,000	387.2	463.1	582.7	555.7
Crime Index (U.S.average=329.7)	253.1	273.6	331.8	308.6

(Source:<http://www.city-data.com/city/Lewisville-Texas.html>)

Crime in Study Area

The crime statistics for the Fox Avenue Corridor study area were extracted from the GIS crime data from January 2001 to January 2006. The data shows that the category with the highest number of crimes was criminal trespassing with a total number of 5920. Criminal mischief was the second highest. Violent crime types are extremely low, which is consistent with the data reported in the 2004 FBI Crime Reports. In regard to our research area, the criminal activities do not exceed the proportionate share of the whole city which means there are no special high crime issues in the study area.

**Fox Avenue Study Area Crime Statistics
(Jan 2001-Jan 2006)**

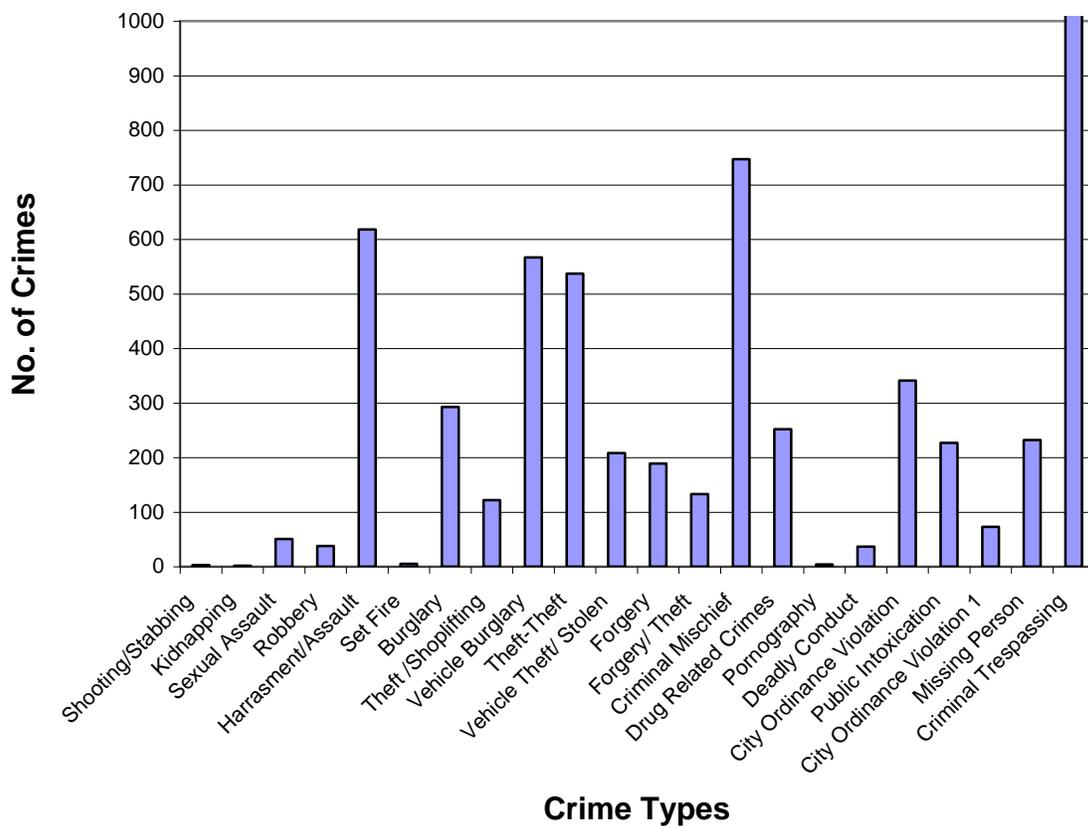


Figure 8.3: Fox Avenue Study Area Crime Statistics

(Source: <http://lewisville.areaconnect.com/crime1.htm>)

Infrastructure and Transportation

Infrastructure and transportation systems are essential to the functioning of all modern cities. These services are playing increasingly pivotal roles in determining the quality of a city's physical environment and the strength of its economy. This chapter discusses the existing state of infrastructure and transportation networks in the City of Lewisville.

Prepared by:

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Dipti Mathur
Rajat Parashar
Sudhish Verma

Transportation

Transportation is the movement of people, goods, signals and information from one place to another. Transport and communication systems are essential to the functioning of any modern city. There have been significant advances in technology and demands for speed of travel and communication over the last twenty years, with demands for further advances. During that period there have also been increases in the population and vehicle traffic, and economic pressures to send goods and information as quickly as possible.

The study area is situated in south-east Denton County. Interstate Highway 35E (IH-35E) forms the eastern boundary of the study area. Main Street on the north, Old Orchard on the west and Bellaire on the south side forms the boundary of the study area. Close proximity to these main arterial streets and the IH-35E provides an easy access to the DFW Airport, Dallas and Forth Worth. The DFW Airport is fourteen miles and is easily accessible via TX-121. The study area is 20 miles north from downtown Dallas and 34 miles from downtown Forth Worth.

Road Network

A roadway network ~~local~~ can be characterized by four major functional classes: highways, arterial streets, collectors and local roads.

Highways

IH-35 on the east ~~of~~ intersects the Tx-121 at the south east corner of the study area. This intersection radiates major access routes to the east connecting to major cities like McKinney, Dallas in the ~~Southsouth~~, San Antonio and Austin to the north and Forth Worth in the ~~Westwest~~. ~~The portion of the study area within two miles of IH-35~~

and FM 1171 (Main Street) is are maintained by ~~the~~ TXDOT and all the other streets are maintained by the City of Lewisville.

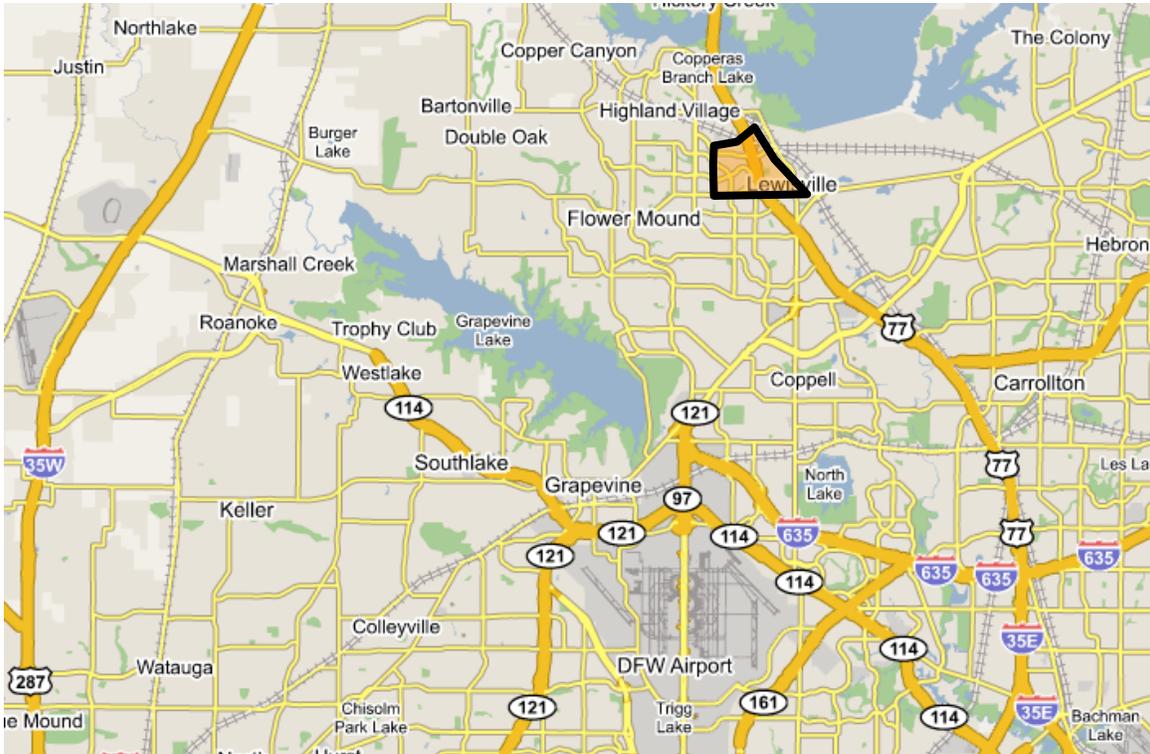


Figure 9.1: Regional Connectivity of the study area

Arterials

An arterial road is a high-capacity road which is just below a highway level of service that carries large volumes of traffic between urban areas providing connections to both highways and collector streets. Commercial areas are commonly found on arterials, but residential entrances directly onto the road are rare. There are three arterials in the study area: Main Street on the North, Bellaire Boulevard on the South and Valley Parkway. These arterials Main Street and Bellaire connect to IH-35 on the eastern edge of the study area, and all three connect to collector streets crossing through the study area.



Main Street



Bellaire Boulevard

Figure 9.2: Arterial Roads

Collectors

Collector streets provide the primary means of circulation between adjacent neighborhoods and route traffic to the arterial street system. Collector streets provide for the dual purpose of land access and local traffic movement. Generally, these roadways are typically not used for through trips. The study area has three collector roads: Edmonds Lane, Old Orchard Lane, and Fox Avenue.



Fox Avenue



Edmonds Lane

Figure 9.3: Collector Streets

Local Streets

All other streets in the study area are local streets that provide access to individual properties. The streets range from needing repair to good condition, as described later in this report. Most local streets are two lanes wide with sidewalks on only one side. Only a few streets end in cul-de-sacs.

Traffic Condition

The road stretch on Main Street between Edmonds and Summit has a high daily traffic volume of 47,810. On Bellaire Street the highest count of 17,708 was found between Edmond and Shore. Old Orchard, which forms the west boundary of the study area, has two major intersections on Main and Fox with a highest traffic volume of 13,080.

Table 9.1: Travel time in minutes^[ADB7]

	Lewisville	Dallas	Texas	US
Public transportation	0.5	5.5	1.9	4.7
Car, truck, van or motorcycle	95.6	88.6	92.3	88
Walk	0.9	1.9	1.9	2.9
Work at home	2.4	2.8	2.8	3.3

(Source: 2000 census, U.S. Census Bureau)

Table 9.2: Transportation to Work

	Lewisville	Dallas	Texas	US
Average travel time to work (minutes)	27	27	25	26
Average travel time to work using public transportation	48	50	47	48
Average travel time to work using other transportation	27	26	25	24

(Source: 2000 census, U.S. Census Bureau^[ADB8])

About 95% of the people in city use private automobile to commute to work and only 0.5% people use public transportation. The low percentage of residents using public transport is due to the greater travel time of 48 minutes as compared to 27 minutes by private automobile.

Physical Infrastructure

Physical infrastructure of a city includes water, sewerage, electricity, transportation and communication and all the structural elements that facilitate urban development. Modern cities and urban systems are heavily dependent on infrastructure networks to make their economic and social systems function effectively. An efficient infrastructure facilitates delivery of information, goods and services, supports economic growth and assists in achieving social objectives such as raising living standards and educational levels.

Transportation appears to have significantly more impact on the design and functioning of the cities than other components of physical infrastructure. Therefore, transportation issues are discussed in a separate section. This section discusses the current state of physical infrastructure in the City of Lewisville.

Water Supply

Lewisville pumps water from Lewisville Lake to its Water Treatment Plant for treatment processing prior to distribution to consumers. Drinking water is also purchased from the City of Dallas_(Dallas Water Utilities)_The City of Lewisville's Water Treatment Plant is capable of producing 20 million gallons of treated water per day. The City of Lewisville's drinking water has maintained its rating of "Superior Public Water Supply," the highest rating given by the Texas Commission on Environmental Quality by continuously meeting and exceeding state and federal standards.

The City of Lewisville has a total system capacity of 30.4 million gallons per day (MGD), of which 18 MGD is produced at the Water Treatment Plant. The Water Treatment Plant recently underwent an expansion to increase the treatment capacity

from the current 15 MGD to 18 MGD. An additional 12.4 MGD is available for purchase from Dallas Water Utilities.

Sewers

The sewer monthly rate for the first 2000 gallons is \$7.66 and an additional \$3.08 for each 1000 gallons. The sewerage charges for City of San Antonio are approximately \$8.00 for the first 1,500 gallons and for City of Houston; the sewerage charges are \$5.74 up to 3,000 gallons. Therefore, the sewerage charges for the City of Lewisville are less than City of San Antonio, but are higher than those for the City of Houston. The City maintains the mains and lateral lines to the property line tap.

Garbage collection

Garbage collection service is provided by Waste Management of Texas. The current monthly rate is \$9.74 compared to the San Antonio rate of \$12.21 per month. Garbage is disposed of in the DFW Landfill located at 1601 Railroad Avenue. Garbage collection charges for San Antonio are \$12.21 per month.

Electricity

There are various service providers for electricity in the City of Lewisville such as TXU Energy, Reliant Energy and Green Mountain Energy. Electricity charges in the City of Lewisville are 13.4 cents per KWh compared to charges in the City of San Antonio are 6.31 cents per KWh for the first 1,600 KWh and 11.6 cents per KWh for the City of Houston. Lewisville has higher electricity charges than San Antonio and Houston.

Neighborhood Infrastructure Analysis

A neighborhood Infrastructure Analysis was done on the “visible” infrastructure in the neighborhood. Only the street characteristics such as the number of lanes, right of way, median, sidewalk width and design speed of the existing streets were taken into account for this analysis. All these characteristics were compared with the given design standards laid out by the city of Lewisville in their 2003 general development ordinance.

On comparing the two, it was found that all the streets adhere to the standards. Most of the street infrastructure in the neighborhood meet or exceed the design guidelines as seen in the Table below. The one exception is the speed limits on Bellaire and Valley, which are on the low side. However, given the residential character of the area served by these streets, these lower speeds are appropriate.

Table 9.3: Arterials - Bellaire and Valley

	Arterial			
	Standards		Bellaire	Valley
No. of Lanes	4	6	4	4
R.O.W. Width	100'	124'	100'	100'
Design Speed	50	50	40	35
Median Width	25'	25'	25'	25'
Sidewalk			4'	5'

Table 9.4: Collector - Fox, Edmonds and Old Orchard

	Collector				
	Standards	Fox	Edmonds	Old Orchard	
No. of Lanes	2	4	4	4	4
R.O.W. Width	50'	60'	70'	60'	70'
Design Speed	25	30	35	35	35
Median Width	-	-	-	-	-
Sidewalk	4'-5'	4'	4'	4'	4'

Table 9.5: Residential streets - Briarwood, Harvest hill, Price and Parkwood

	Residential				
	Standard	Briarwood	Harvest Hill	Price	Parkwood
No. of Lanes	2	2	2	2	2
R.O.W. Width	50'	50'	50'	50'	50'
Design Speed	25	25	25	25	25
Median Width	-	-	-	-	-
Sidewalk	4'-5'	4'	4'	4'	4'

Capital Improvement Program in Fox Avenue Neighborhood

There are five proposed capital improvement projects in the Fox Avenue neighborhood related to street improvements. All these projects are funded through general obligation bonds. In each of these projects the streets will either be resurfaced or receive asphalt repair and sidewalks will receive repairs as needed.



October 2005



February 2006

Figure 9.4: South Shore Lane at Oakwood Lane

Project Details

Lakeland Terrace #2: This includes the area bounded by North Shore Place, Lakeland Drive, South Shore Place, Oakwood Lane and Pebblebrook Drive. This project was estimated to be completed by March 2006, and has an estimated cost of \$3.2 million.

Serendipity Village: This includes Madison Drive, Salem Trail, Foxwood Place, Village Drive (and branching cul-de-sacs), Bowling Green Circle, and Wildfire Drive. This project is expected to start in 2007 and is estimated to cost \$4.7 million.

Westlake Park: This project includes street improvements in the area bounded by Sweetbriar Drive, Price Drive, Leisure Drive, Stonebrook Drive, Dewberry Drive, Valley Parkway and Springwood Drive. This project is expected to start in 2007 and is estimated to cost \$5.8 million.

Westwood Estates I: This project includes resurfacing the local roads within the area bounded by Briarwood Drive, Valley Parkway, Fox Avenue and Old Orchard Lane. Street improvements on Fox Avenue, Old Orchard Lane, and Valley are not included in this project. It is expected to start sometime in 2009-2010 and is expected to cost \$7.5 million.

Westwood Estates II: This includes the area bounded by Fox Avenue, Valley Parkway, Kingston Drive, and Old Orchard Lane. Street improvements on Fox Avenue, Old Orchard Lane, and Valley are not included in this project. It is expected to start sometime in 2009-2010 and is expected to cost \$5.8 million.

Table 9.6: Capital Improvement Projects

	Estimated Completion Date	Estimated Start Date	Estimated Cost (in \$ million)
Lakeland Terrace # 2	Mar-06		3.1
Serendipity Village		2007	4.7
Westlake Park		2007	5.6
Westwood Estates		2009-2010	7.5
Westwood Estates II		2009-2010	5.8

(Source: City of Lewisville Public Services Department, 2005)



October 2005



February 2006

Figure 9.5: Pebblebrook Drive at Oakwood Lane

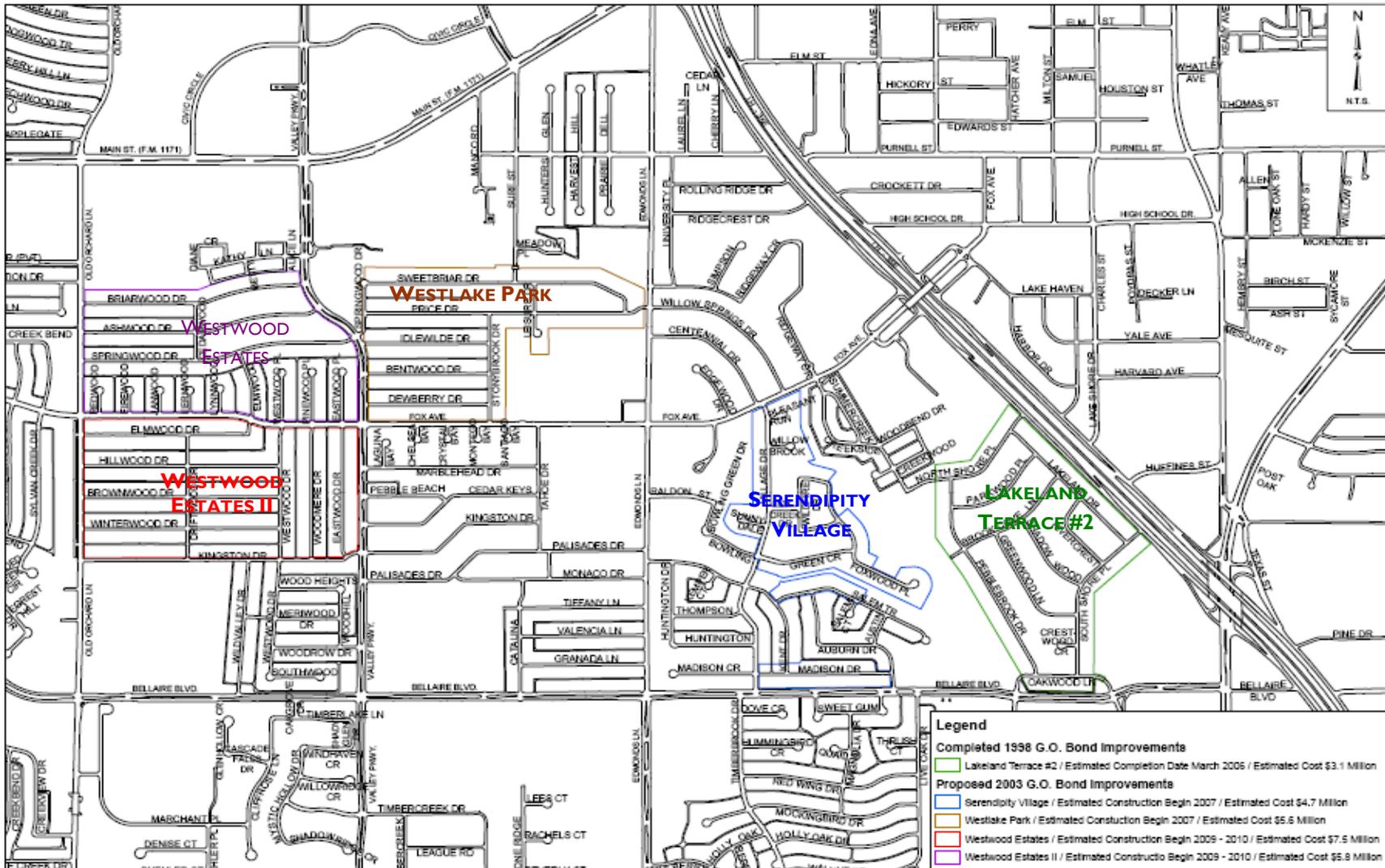


Figure 9.6 : Capital Improvement Project

Windshield Survey Results

An evaluation of road conditions was performed on October 9th, 2005 in the Fox Avenue Corridor of the City of Lewisville. Roadway condition was evaluated using a drive-by technique. The physical characteristics of each road were noted. Including total number of lanes, street direction (1-way / 2-way), medians, sidewalks, bike paths, amount of traffic, noise levels, and street lighting.

General road surface conditions were observed and arranged in four categories. Roads were determined to be either in good condition, satisfactory condition, poor condition or in need of urgent repair. Pedestrian friendliness was gauged by the presence of sidewalks, cross walks, road crossing traffic lights, curbs, and other features such as median refuge island.



Figure 9.7 : Sidewalk on Main Street

Observations

A majority of the roads are in satisfactory and good condition. Few roads are in poor condition or are in urgent need of the repair. Repair work was going on in some streets such as Pebblebrook. Almost all of the streets have good pedestrian facilities. The noise levels are low in most of the streets except some parts of I21 Business, Fox Avenue, Lakeland, and Bellaire.

Social Infrastructure

Social infrastructure is important as it promotes a safe and healthy environment for people to live in. This section includes City Hall, community development, police services, fire services, education services, health services, and other services such as post office, churches and libraries.

City Hall

Chartered in 1925 as a Municipality by the state of Texas, Lewisville uses a Council/Manager form of government whose mission is to meet its residents' needs with the highest quality of service. The city has the following departments related to social infrastructure: community development, police department, fire department, parks and recreation department, public utilities department, public works department. The City Hall is located at 151 West Church Street in Lewisville.

The Mayor/City council, a body elected by the people of the City of Lewisville, sets laws and regulations governing the City of Lewisville. Under the Council/Manager form of government, the City Council supervises the City Manager, the City Attorney, the City Secretary and the City Judges. The City Council is responsible for developing policy and the City Manager responsible for implementing those policies. The City Manager supervises all other city employees.

Police Services

The Lewisville Police Department has an authorized strength of 185 full-time employees (130 officers and 56 civilians), which includes three positions partially funded by Federal grants. The Department consists of the following operational and support components: Administration, Operations and Support Services. In addition, the

department is augmented by a volunteer support organization made up of previous graduates of the Lewisville Citizen's Police Academy.

The mission of the Lewisville Police Department is to maintain a peaceful and orderly community. The Department strives to enhance the quality of life in the community by working in partnership with citizens to protect life and property, maintain order, understand and serve community needs and enforce the law in a manner consistent with legislation and community values. In the fulfillment of its vision, the Lewisville Police Department seeks to achieve a service level that surpasses the expectations of the community. The Department strives to continue to be a leader in the professional delivery of police services through the pursuit of innovative service delivery strategies. The data presented in the previous chapter on Crime reveals that both the City of Lewisville and the Fox Avenue Corridor are comparatively 'safe', especially from violent crimes, which is attractive for existing and future residents.

Fire Services

Today the City of Lewisville has a total of 6 firehouses. It has gone from a hand drawn water wagon and buckets to 6 fire engines, an aerial ladder truck, and 5 MICU Ambulances (Mobile Intensive Care Units). The days when volunteers were summoned using a hand-cranked siren have given way to a large staff of full-time paid firefighters, paramedics, a dive team, and administrative staff. Currently, the Department on average responds to life or property threatening calls over 21 times per day. Central Fire Station is adjacent to the study area.

Public Works Department

The Public Works Department has four major divisions which are the Street Maintenance Division, the Traffic Operation Division, the Utility Line Maintenance Division, and the Facilities Maintenance Division.

Street Maintenance Division

The Street Maintenance Division is responsible for maintenance of the city's streets, sidewalks, alleys, and drainage systems. It currently maintains over 546 miles of city streets.

Traffic Operation Division

The City of Lewisville Traffic Operations Division is responsible for maintaining traffic devices used to direct traffic in a safe and efficient manner within city limits. Traffic Signal Crews maintain 85 intersections within City Limits. They also maintain an additional 15 signalized intersections outside the City limits through an inter-local agreement with ~~Tx~~~~Det~~OT (Texas Department of Transportation).

Utility Line Maintenance Division

The Utility Line Maintenance Division is responsible for the maintenance of the utility line in the whole city.

Facilities Maintenance Division

The Facilities Maintenance Division is made up of a group of professionals that offer two different types of service: Building Maintenance and Custodial. This division has been a part of the Department of Public Works since October 2000. This division provides an internal service for the City of Lewisville and was designed to handle the maintenance, repair and cleanliness of City facilities. The Facilities Maintenance Division is available to all City departments.

Education services

The City of Lewisville has ~~16~~17 schools. There are ~~5~~11 public elementary schools, ~~3~~4 public middle schools, and 2 public high schools. ~~Besides,~~ ~~€~~There are also 5 private primary/middle schools and 1 private high school in Lewisville.

The ~~5-11~~ public elementary schools are: ~~Central Elementary School (Location: 400 High School Drive), Lakeland Elementary School (Location: 800, Fox Avenue), Degan Elementary School (Location: 1680 College Parkway), Castle Hills Elementary School (Location: 1025 Holy Grail Drive), and Valley Ridge Elementary School (Location: 1604 N Garden Ridge Blvd).~~ Valley Ridge, Degan, College Street, Central, Lakeland, Creekside, Southridge, Rockbrook, Hedrick, Parkway, and Castle Hills (in the ETJ).

The ~~3-4~~ public middle schools are: ~~Huffines Middle School (Location: 1440 N Valley Pkwy), Hedrick Middle School (Location: 1526 Bellaire Blvd), DeLay Middle School (Location: 136 Purnell Street).~~ The two public high schools are: ~~Lewisville High School (Location: 1098 W Main ST), Dale Jackson Carrer Center (Location: 1597 S Edmonds Lane)~~ DeLay, Durham, Hedrick, and Huffines.

The two public high schools are Lewisville and Killough (10th).

The 5 private primary/middle schools are: Christian Child Dev Center (Students: 218; Location: 907 W. Main; Grades: PK-KG), Blossom Valley Academy (Students: 150; Location 1252 College Parkway; Grades: PK-2), Montessori Episcopal School (Students: 140; Location: PO BOX 292967; Grades: PK-2), Windmill Private School (Students: 140; Location: 531 W. Main; Grades: PK-2), Miller Adventist School (Students:12; Location: 1471 Corporate; Grades: KG-8).

The only private high school in Lewisville is Temple Christian Academy (Students: 337; Location: 1010 Bellaire Blvd; Grades: PK-12).

There are only two public schools inside the study area, which are Lewisville High School and Lakeland Elementary School. The following sections will give detailed introduction about their demographic variation, economically disadvantaged students' enrollment variation and budget variation.

School performance is very important factor for attracting future residents to select the study area as their optimal living community. Fortunately, the Lewisville Independent School District provides campus ratings for each public school in its area

	2000	2001	2002	2003	2004	2005
Lewisville HS	Acceptable	Recognized	Acceptable	Acceptable	Acceptable	Acceptable
Lakeland EL	Recognized	Acceptable	Recognized	Recognized	Acceptable	Acceptable
Central EL	Acceptable	Acceptable	Acceptable	Acceptable	Acceptable	Acceptable
Degan EL	Acceptable	Recognized	Exemplary	Exemplary	Recognized	Recognized
Valley Ridge EL	Recognized	Recognized	Exemplary	Exemplary	Recognized	Recognized
Huffines MS	Acceptable	Acceptable	Acceptable	Acceptable	Recognized	Recognized
Hedrick MS	Acceptable	Acceptable	Unacceptable	Unacceptable	Acceptable	Acceptable
Delay MS	Acceptable	Acceptable	Acceptable	Acceptable	Acceptable	Acceptable

from 2000 to 2005. Schools are classified in one of four levels: 1. Exemplary, 2. Recognized, 3. Academically Acceptable, and 4. Academically Unacceptable. The detailed information about the schools in and around the study area is provided before is in Table 9.8, below.

Table 9.7: Performance of Lewisville Schools, 2000-2005

(Source: *City of Lewisville Public Services Department/Lewisville Independent School District, 2005*)

The information in Table 9.8 clearly demonstrates that almost all the public schools varied in their performance from 2000 to 2005.

Figure 9.9 shows the performance variation for the two public schools in the study area from year 2000-2005. (Academic score: 0="Academically Unacceptable", 1="Academically Acceptable", 2= "Recognized" and 3="Exemplary".) From Figure 9.9 we can see Lewisville High School and Lakeland Elementary School in the study area varied from academically acceptable level to recognized level from 2000 to 2005. However, the performance of these two schools declined most recently and began to maintain at the academically acceptable level from 2004. In addition, the performance variation of the public schools near the study area can be also found in Figure 9.10.

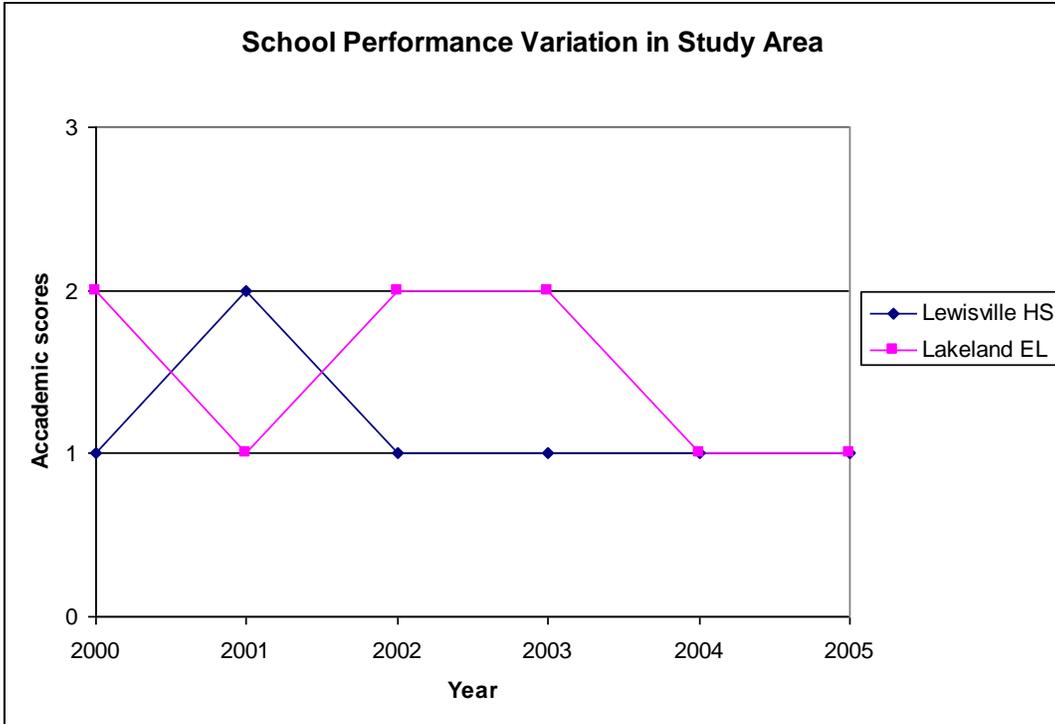


Figure 9.9: Performance of Schools Within Study Area, 2000-2005

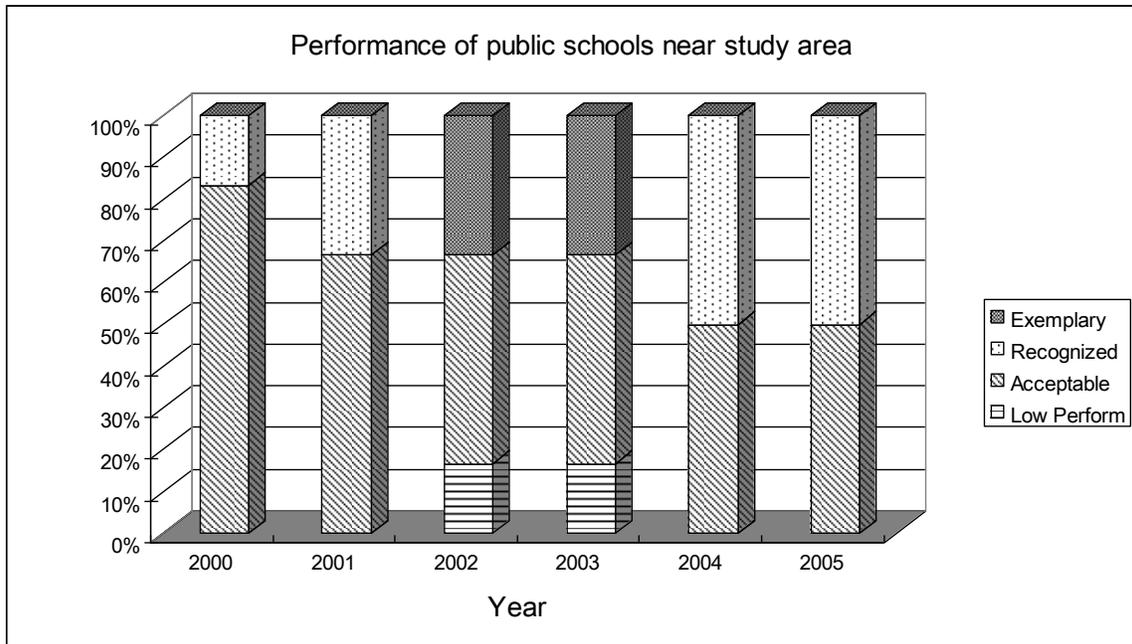


Figure 9.10: Performance of Schools near Study Area, 2000-2005

From figure 9.10 we can see the performance of public schools near the study area is also declining from 2000 to 2005, similar to the performance of the two public

schools in the study area. It means although the performance of public schools in the study area is becoming worse, they can also be considered as relatively desirable schools to attend.

The following demographic data, budget data, etc from 1995 to 2005 for Lewisville High School, Lakeland Elementary School and Lewisville Independent School District are extrapolated from the Texas Education Service website and are shown in Table- 2. Figures and graphs will be constructed based on the data for better understanding and analyzing the trends.

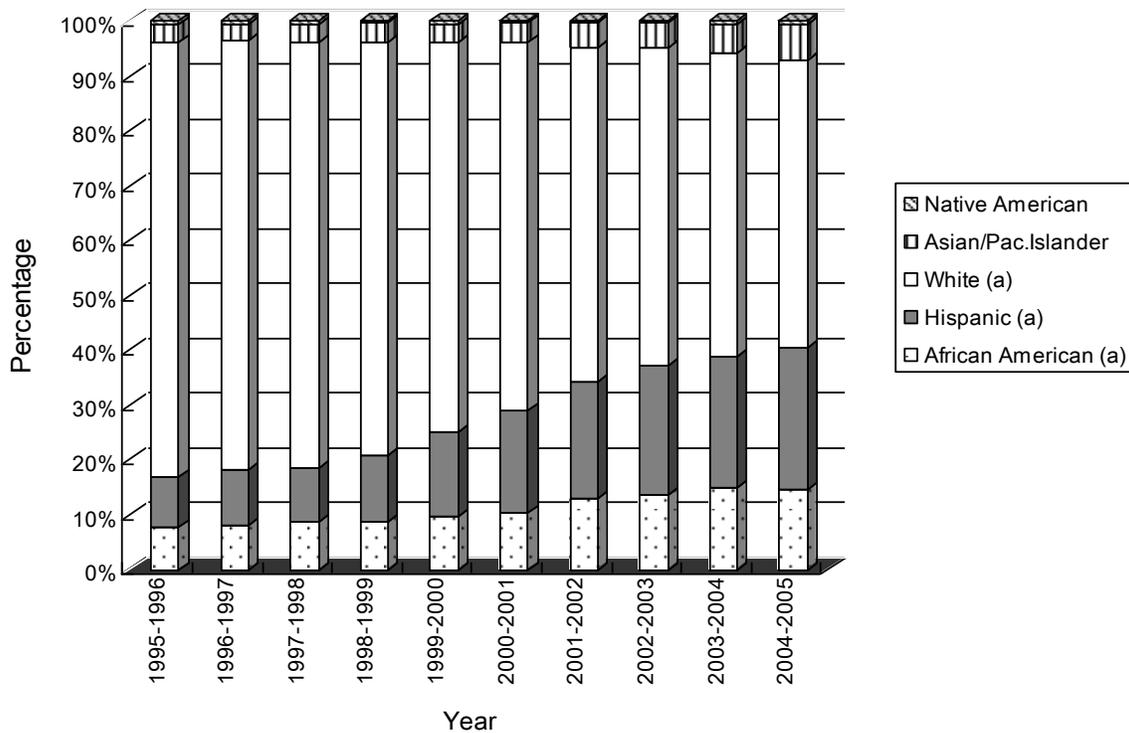


Figure 9.11: Demographic variation of Lewisville High School

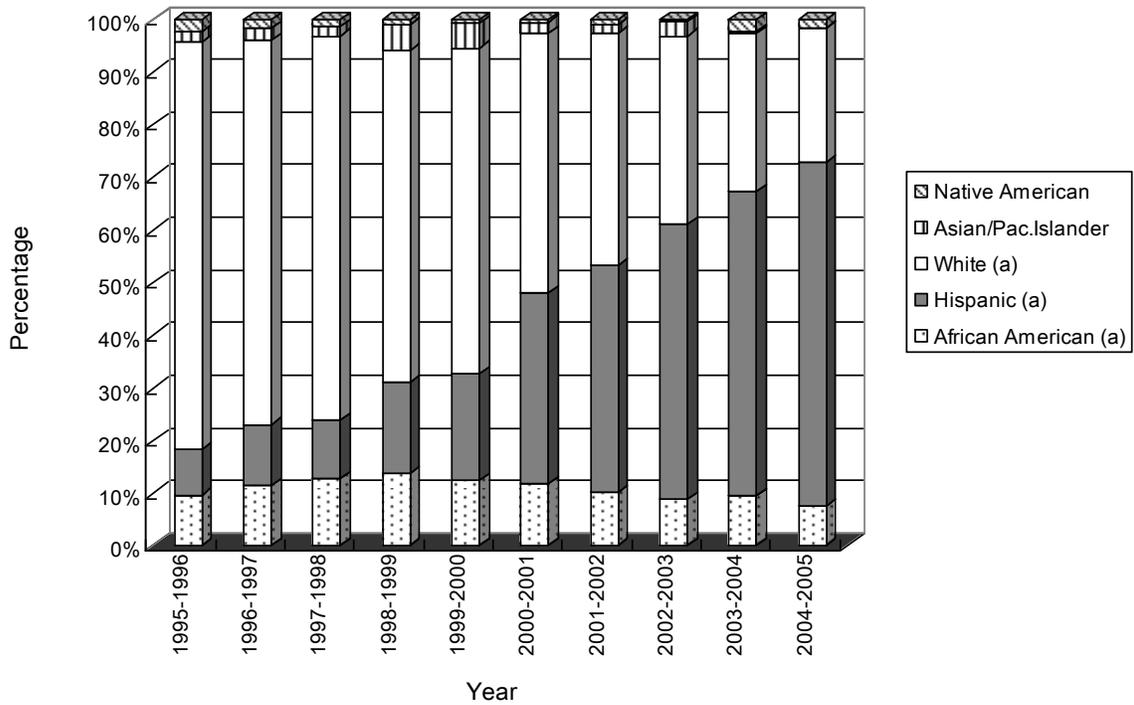


Figure 9.12: Demographic variation of Lewisville High School

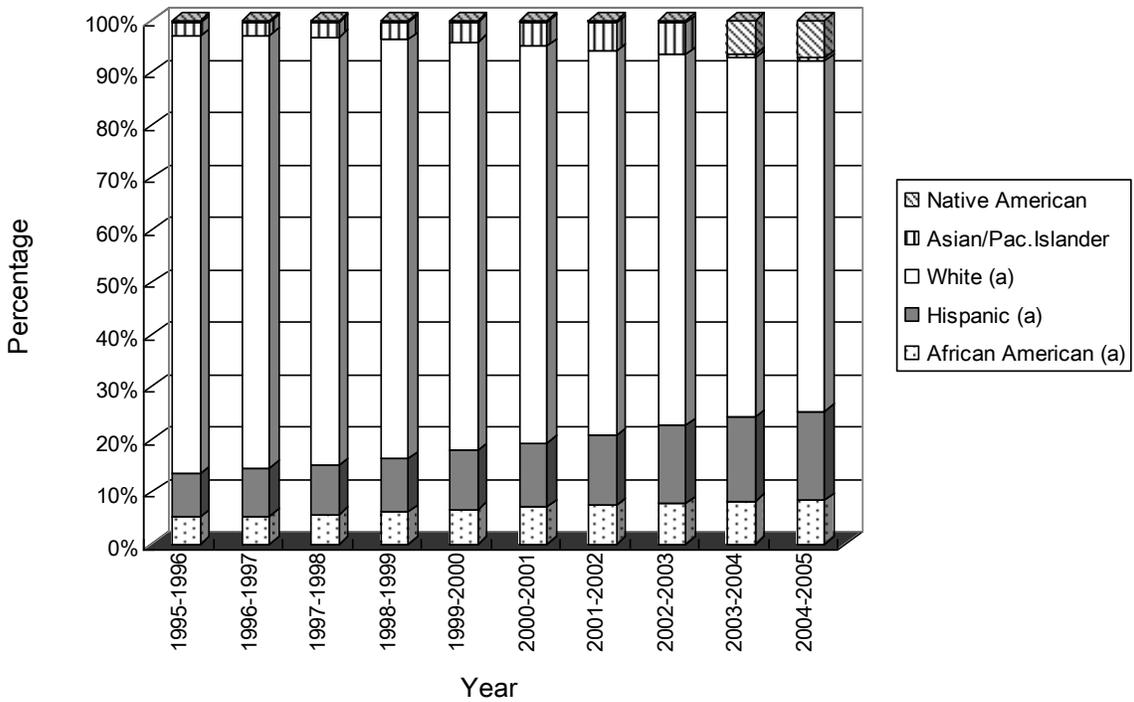


Figure 9.13: Demographic variation of Lewisville High School

Demographic variations among schools reflect how the student resources change over time. They can partially help us to understand the demographic changes of the whole study area. Figure 1, 2 and 3 show demographic variation by year for Lewisville High School, Lakeland Elementary School, and the Lewisville Independent School District, respectively. There are several points that stand out for the two public schools in the study area compared with the whole Lewisville ISD.

The total percentage of white students is decreasing for Lewisville High School and Lakeland Elementary School from 1995 to 2000. The decreasing trend of Lakeland Elementary School is sharper than that of Lewisville High School. However, it should be noted that the Lewisville Independent School District, compared with the two public schools in the study area, has a lower speed of decrease in the percentage of White students. This fact may demonstrate that the study area is losing its white residents much faster than Lewisville Independent School District as a whole.

Conversely, the total Hispanic students' percentage increased rapidly for Lewisville High School and Lakeland Elementary School from 1995 to 2005, especially for Lakeland Elementary School. Although the total number of Hispanic students is also increasing for the whole Lewisville Independent School District, the increasing rate of the change and the total percentage of Hispanic students are much lower than those of two public schools in the study area. This possibly means that an inflow of Hispanic residents in the study area has taken the place of an outflow of white residents.

The percentage of African American students for Lewisville High School is increased steadily from 1995 to 2005, with the average percentage higher than that of Lewisville Independent School District for every year.

In addition, the variation of economically disadvantaged students' enrollment and variation of school budgets are graphed in Figures 4 and 5. These graphs suggest a hypothesis that the average income of Hispanic households is lower than that of white households, based on which we can assume that the percentage of economically disadvantaged students should increase in accordance with the increase of the percentage of Hispanic students.

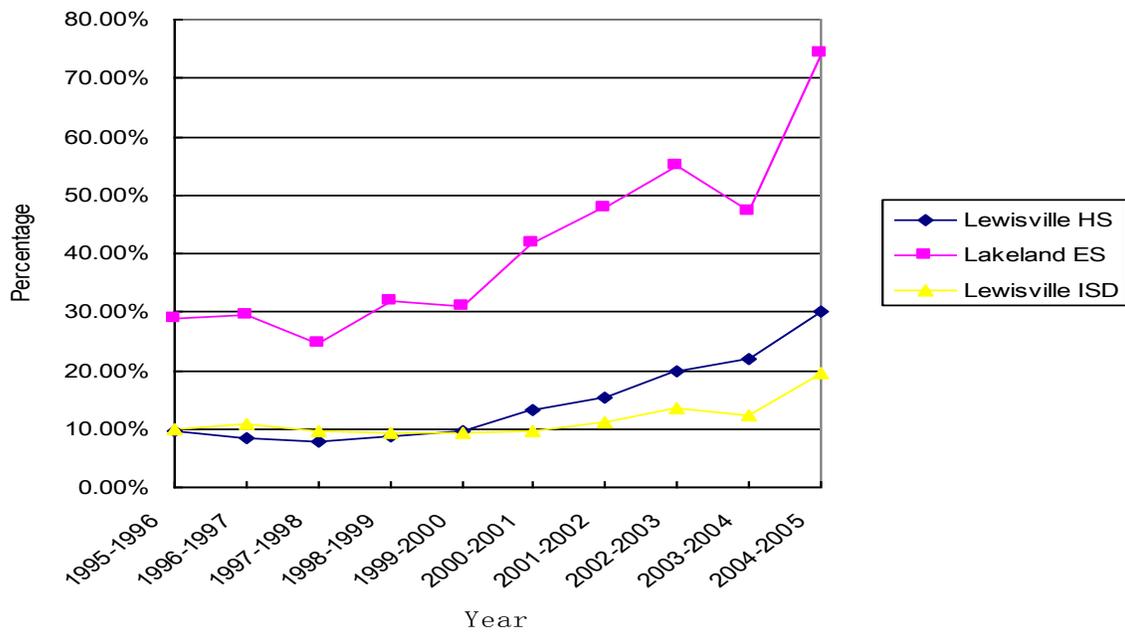


Figure 9.14: Demographic variation of Lewisville High School

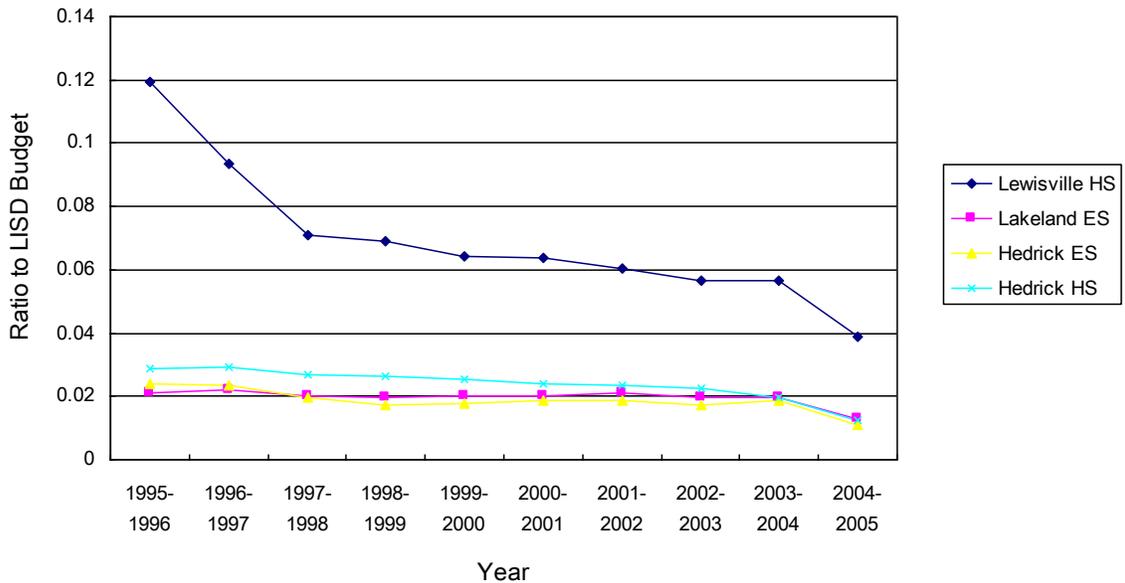


Figure 9.15: Demographic variation of Lewisville High School

The following observations ~~and thoughts~~ are ~~desired~~ derived from Figure 4 and Figure 5. It is very clear that the total percentage of economically disadvantaged students has steadily increased from 1995 to 2005 for the two public schools in the study area (especially for Lakeland Elementary School in 2003-2004). The total percentage of economically disadvantaged students in Lakeland Elementary School is

nearly as three times that of Lewisville High School almost every year. Compared with these two public schools, Lewisville Independent School District has lower percentage of economically disadvantaged students after 2000.

In contrast, the budget for these two public schools, compared with the budget for Lewisville Independent School District, has decreased steadily from 1995 to 2005. The shortage of funding for these two public schools may leave them unable to serve the increasing percentage of economically disadvantaged students and may be one important factor for their poor performance^[ADB9].

In conclusion, the analysis of school data may reveal that the Hispanic residents have been increasing while the white residents have been decreasing. In addition, the budgets for these two public schools are not sufficiently increasing compared with these of the whole Lewisville Independent School District. These two facts need to be addressed for neighborhood revitalization recommendations.

Health

There is one hospital inside the boundary of the City of Lewisville. Besides this one, the hospitals within a range of 11 miles (20-minute drive) around the City are shown in Table 2 below

Table 9.8: Regional Health Care Facilities

	Number of Beds	Distance to Lewisville	Ratings
Medical Center of Lewisville	148	0 mile	Conditional Accreditation
Trinity Medical Center	207	8 miles	Accredited
Baylor Medical Center at Grapevine	197	10 miles	Accredited
Denton Regional Medical Center	184	11 miles	Accredited

(Source: Joint Commission on Accreditation of Healthcare Organizations, 2005 data)

The ratings were given by the Joint Commission, which is the nation's leading standards setting and accrediting body in health care. It classifies the hospitals in seven levels based on a series of factors. These are: "Accredited", "Provisional Accreditation", "Conditional Accreditation", "Preliminary denial of Accreditation", "Denial of Accreditation", "Preliminary Accreditation", and "Accreditation Watch". From the table 2 we can see the only health care service in Lewisville, Medical Center of Lewisville, is classified as "Conditional Accreditation", which means it is not in substantial compliance with the standards set by Joint Commission. However, three hospitals near Lewisville are classified as "Accredited" level which means they are in compliance with all standards. Medical Center of Lewisville needs to find out the reason for this problem and try to solve it.

Churches

There are altogether 59 churches in the City of Lewisville.

Post office

There are 20 post offices in the City of Lewisville.

Public library

There is one public library in the City of the Lewisville which is Lewisville Public Library. The operating income of the library is \$1,390,732 per year and it has 150,575 books, 5,963 audio materials, 7,321 video materials, and 400 serial subscriptions. It is located in 1197 W Main Street.

Environmental Resources

The environmental analysis for the City of Lewisville consists of reviewing the relationship between environmental quality, land development and the historical promise of natural resources. The principles used for the analysis were derived from *Environmental Planning and Decision Making* by Leonard Ortolano, 1984.

Air Quality

The EPA has designated Denton County, where Lewisville is located, as a “non-attainment” area for violating the national ambient air quality standards for ozone. The entire Metroplex area is second to Houston for worst ozone quality in Texas, as a state third in the nation for industrial air pollution. Lewisville has contributed little to this, but heavy vehicle usage in the area emits enough pollutants that Lewisville should take notice. The health and economy of the community depends on clean air and water and Lewisville, which does have high quality water, needs to be careful about current and future clean air standards. ²

² EPA

Water Quality

Lewisville gets most of its water from Lewisville Lake, with additional water supplements coming from the nearby City of Dallas. The Texas Commission on Environmental Quality has given Lewisville drinking water its rating of “Superior Public Water Supply” for exceeding state and federal drinking water standards.³ Lewisville also has a collection of streams that cut through the city, collect storm water and deliver to the Trinity River.

³ City of Lewisville.

Noise

Lewisville has become a busy city, particularly because of its transportation resources, and that has made a once quiet area somewhat noisy. Interstate 35 and its forthcoming expansion have made much of the central part of the city noisy and congested, full of people and vehicles. Airplanes from DFW airport, to the south and one of the busiest airports in the nation, constantly fly overhead in Lewisville, sometimes at very loud landing decibels. Although most of the city is made of quieter residential neighborhoods, a few of the main commercial hubs are extremely noisy and crowded.

Visual Resources

A city gets most of its visual resources from the natural landscape, unless the urban form has diminished much of that landscape. Lewisville is not completely developed and some natural green space remains, but some of it is threatened by further development. However, visual resources can also apply to the built environment, including buildings, historical assets or tree-lined boulevards. Lewisville has several parks, open space to the east, and some tree cover that is extensive in a few places. An aesthetic review of visual resources will be covered in a later chapter of this report.

Biological Resources

Lewisville and the area has some worthwhile biological resources, including a variety of plants, animals, water and soil types that support a number of biotic species. Biological resources are important, especially in areas continually becoming more urban, as they help provide a healthy environment, biodiversity and economic benefits, as well. Hunting and fishing are big industries in North Texas and protection of the animals, their habitats and food sources can ensure this economic advantage for the city. Other natural resources in the area include oil, gas, gravel and sand excavation. Oil has long been an important resource economically and gas is becoming the next big boom for exploration in North Texas. ⁴

⁴ TexasEP

Geology /Soils

Lewisville, located in the eastern half of Denton County, has two distinct soil types: The Eastern Cross Timbers, to the west, and the Blackland Prairie, to the east. The Blackland Prairie, which makes up most of the city of Lewisville, contains mostly rich black soil and naturally consists of grassland prairie with large trees located in creek bottoms, low lying areas and near the lake. This soil has proved suitable for farming, ranching and oil/gas exploration. The Eastern Cross Timbers contains a more sandy soil and is full of large trees is thick forests and rolling hills. The Eastern Cross Timbers is to the west of the majority of Lewisville and a third soil type, the Grand Prairie, a black soil, is located in the western portion of Denton County, out of Lewisville entirely. ⁵

⁵ TSHA

Trees/Vegetation

Most of the native trees in Lewisville are located in creek bottoms, flood plains and are contained mostly in the Cross Timbers Soil swath in the western part of the city. Much of the current tree cover in the city has been planted by residents on private property and includes common species such as oak, elm, ash, etc. Most of the town was originally covered in prairie grass, although much of this has disappeared to make way for agriculture, grazing and human development. Native brushy vegetation and grasses have mostly disappeared within the city limits and have been replaced with urban plants like lawns, hedges and flowers.

Common Trees

- Black Jack
- Post Oak
- Hackberry
- White Ash
- Sycamore
- Pecan
- Cottonwood
- Elm
- Willow
- Live Oak

Fauna

Some common, native fauna in the area include a variety of birds (migratory and local) and some prairie species. These include turkey, dove, pheasant, quail, fox, duck, squirrel and a few remaining white-tail deer. Although many of these species, particularly the birds, still remain and are hunted regularly in North Texas, most of the animals have been pushed out of Lewisville by human development. The EPA lists a number of endangered species in the area, mainly birds with dwindling habitats, listed here:

Endangered Species

- Interior Least Tern
- Whooping Crane
- Piping Plover
- Bald Eagle
- Black-Capped Vireo
- Golden-Cheeked Warbler
- Texas Poppy Mallow
- Texas Horned Lizard (horny toad)
- Texas Kangaroo Rat

Flood Hazards

Flooding presents a significant hazard in many areas, and as a natural phenomenon, deserves analysis as an environmental factor. Examination of Flood Insurance Rate Maps of Lewisville and the surrounding area reveals that the city does not have a problem with widespread flooding. Figure 1 shows a portion of the FIRM flood map for Lewisville on the east side of IH-35, which shows floodplains exist on near the Trinity River. The map shows that current development is a good distance from the flood zone areas.

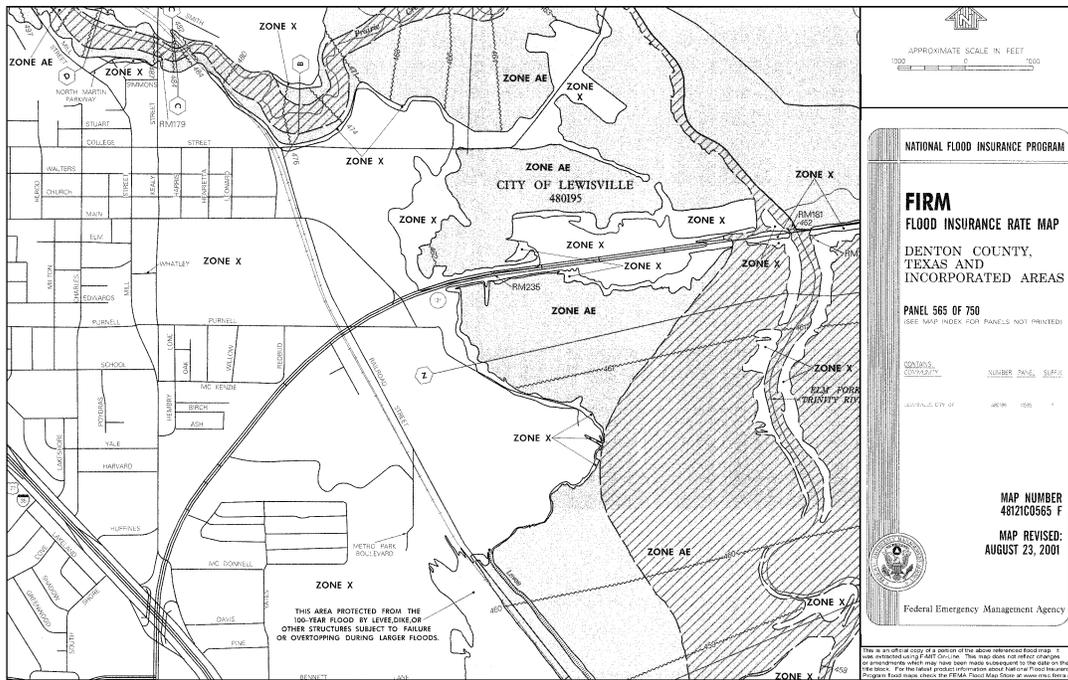


Figure 1: FIRM for Lewisville, East of IH-35 (Source FEMA)

Figure 3 shows a portion of the FIRM for Lewisville west of IH-35, which contains the Fox Avenue study area. Flood zones in this portion of Lewisville are isolated to the stream areas, with only one area in the Fox Avenue study area. The

flood zone runs the length of the canal in the eastern portion of the Fox Avenue study area. The study area is under very little risk from flooding.

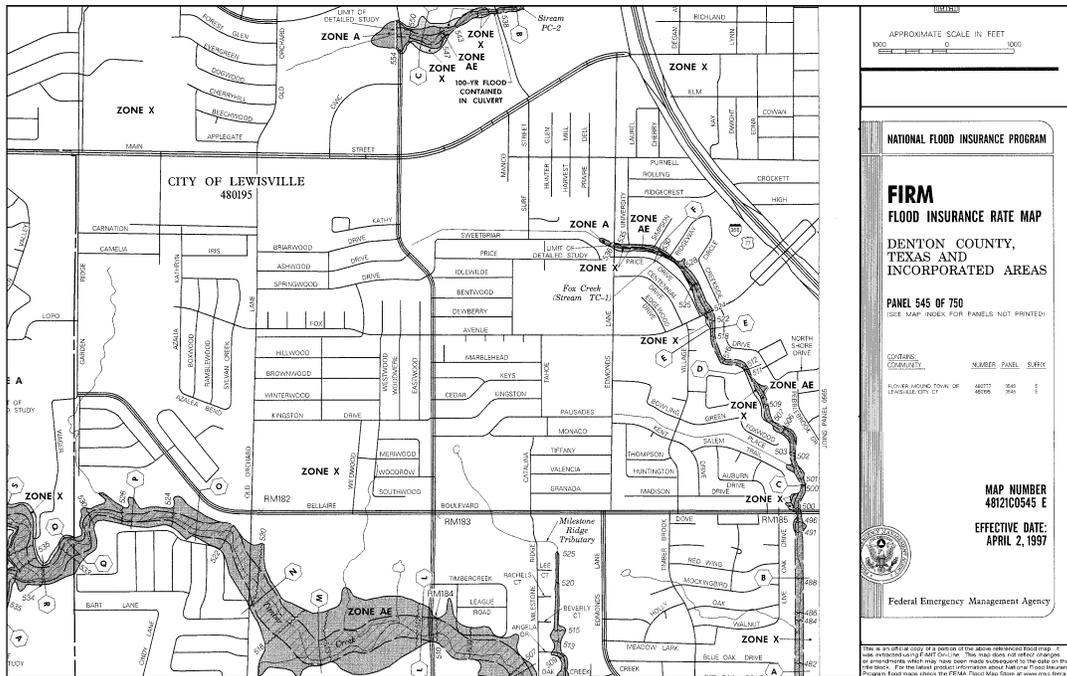


Figure 2: FIRM for Fox Avenue Study Area (Source: FEMA)

The Lewisville public works department was contacted regarding any issues with localized flooding that may not be due to a floodplain. The department confirmed no areas existed with drainage or flooding issues. The same person in the department also confirmed that the FEMA maps were used to determine flood prone areas. As long as the existing floodplains are not encroached upon and a healthy percentage of ground is left uncovered by hardscape, flooding should not be an issue in the area.

Urban Image

An aesthetic analysis of the Fox Avenue Corridor consists of an assessment of various components of a city's or neighborhood's image. The image components, and the principles behind their assessment are adapted from Kevin Lynch's *The Image of the City* (1960, MIT Press).

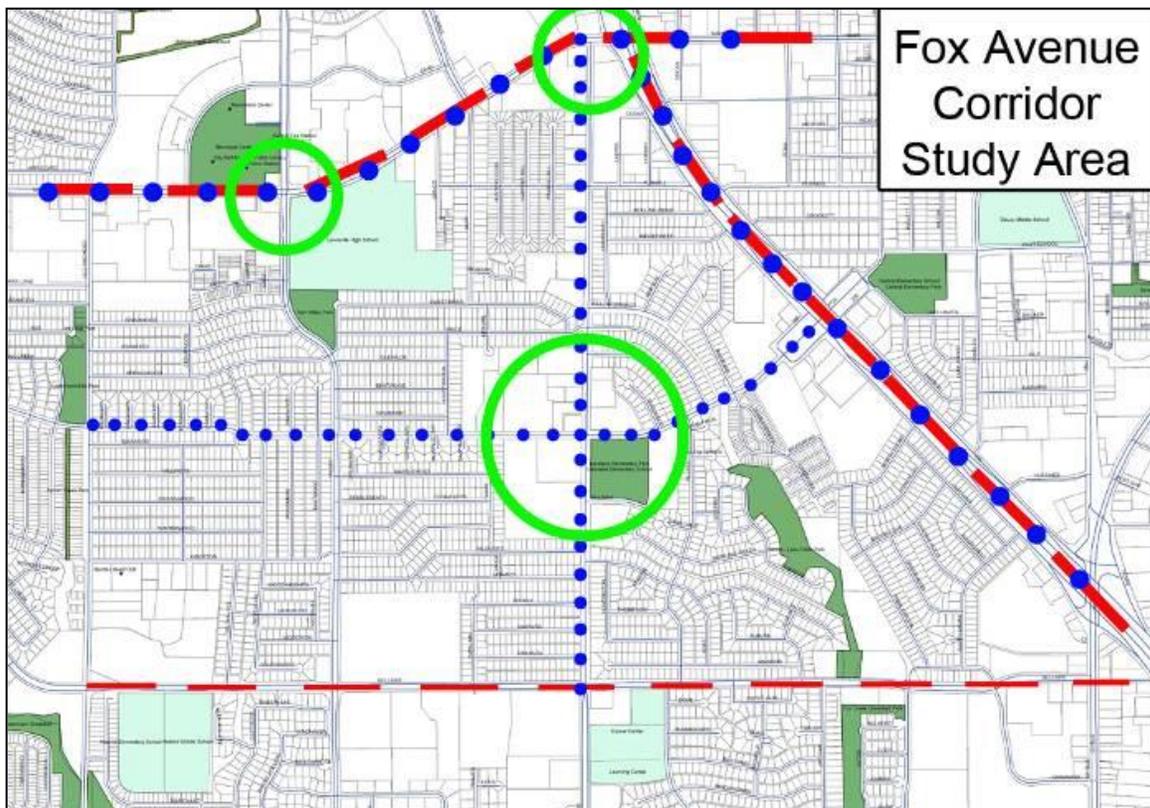


Figure 1: Paths, Nodes and Edges located in the study area

Paths

Paths are elements that provide movement. They supply visitors and residents to a city with routes into, out of, and within the city. Paths are vital to a city's image because they are central to the experience of the city for outsiders, who may be only

passing through; their perception of the city will be formed by what they experience along these paths. The primary paths for the Fox Avenue corridor are IH-35E, Main Street, Fox Avenue, and Edmonds Avenue. IH-35E connects the study area to outside destinations north and south, and Main Street provides an east-west connection. Fox Avenue provides access from the interstate to the heart of the study areas, and Edmonds runs north-south through that same vicinity. The majority of the commercial properties in the study area are located on the northern edge, along Main Street. Due to the size of the streets, IH-35E and Main contain most of the commercial properties and serve as primary paths, while Edmonds and Fox hold a secondary status.

The appearance of the commercial properties along IH-35E and Main are of significant importance; as these paths carry a significant volume of traffic, these properties form traveler's opinions of the study area. At present, these commercial areas have been noted for their lack of greenery and, in some cases, generally poor façade conditions. Fox and Edmonds pass primarily through residential areas, though Fox does connect to IH-35E in the east, providing an excellent opportunity for a gateway. The overriding impression at that location, however, is a lack of any sense of place or arrival. To function as an effective gateway or entry corridor, Fox Avenue will require some modifications.

Edges

Edges are linear features that function as boundaries. They often act as barriers and divisive elements, but they can serve a unifying or organizational purpose, especially on the edge of city, where they can delineate what is or is not part of the community.



IH-35E Provides hard edge on east side of Fox Avenue Study Area

The Fox Avenue study area has two hard edges in IH-35E and Main Street. These serve as firm barriers and separate the study area from other neighborhoods. Bellaire Avenue, the southern boundary of the study area, serves to separate the Fox Avenue Corridor from the slightly higher-income areas to the south. Though it does not experience the same traffic volumes as IH-35E or Main Street, its width presents a physical barrier. The study does not have a rigid edge on the west side, though its official boundary in that area is Old Orchard Avenue. This street is not a major thoroughfare and is not any larger than the other north-south streets in the study area. Thus, the study area simply bleeds into the neighboring area to the west.

Districts

These areas usually encompass large portions of a city and are generally areas capable of being defined in a way that a visitor is aware they have entered “someplace.” Districts are usually identified as having some unifying characteristic that differentiates them from other areas. An argument could be made that the entire study area is itself a district, but if so, it is an arbitrary one. While it may seem to be a plausible district on a map, a survey of the area indicated a lack of unifying urban design features or anything else to indicate that the study area functions as a cohesive unit. A district must be centered around some unifying characteristic, such as a node, and none such is present here.

Nodes

Nodes are the strategic points in a city, made important either because they are the main points of entry, the convergence of several important paths, or simply the symbol of or focus for a district. It is of utmost importance that cities capitalize on the visibility of nodes to project a positive image. The City of Lewisville as a whole has a very important node in the intersection of IH-35E and Main Street, at the northeast corner of the study area, but most of the benefit goes toward drawing visitors to the city's historic downtown. The Fox Avenue Corridor gains little from this node.

An “embryonic” node exists at the intersection of Fox and Edmonds Avenues. The intersection is in the center of the study area and is in close proximity to a variety of land uses, including two churches, two apartment complexes, a small (but busy) shopping center, and an elementary school. Given the uses present and its location on a map, this area appears as though it should be a node, yet it is not. No sense of place pervades the site, and it does not serve as a focus for the surrounding neighborhood. With proper urban design, the site could prove to be most promising.

Landmarks

Like nodes, landmarks are a reference to a point in space, but their use is external, as opposed to something one must enter to make use of it. Landmarks are often most useful when observed from a distance and may be simple physical features. On the other hand, particular local landmarks may be imbued with some higher meaning due to a role in the local historical record. One of the notable characteristics of the study area is a lack of distinct landmarks recognizable from the major paths. This is lamentable, seeing as how more landmarks might give the area a greater sense of place and somehow differentiate it from the rest of the residential neighborhoods in the city.

SWOT Analysis

This section lists the results of analyzing the Fox Avenue Corridor to identify the Strengths, Weaknesses, Opportunities and Threats (SWOT). This analysis was conducted by four sub-teams focusing on the following aspects of the study area:

1. Demographics and Economics
2. Environmental and Aesthetics
3. Infrastructure and Transportation
4. Land Use and Zoning

A comparison of these SWOT lists by subject areas reveals the following conclusions. Overall the Fox Avenue Corridor has housing that is in overall good condition with stable property values and adequate infrastructure. Strength of the area is a majority of the homes are owner-occupied. Some shopping centers along IH-35E have noticeably higher vacancy rates that could be reduced with better access that could be created during the expansion of IH-35E and better pedestrian access. Other shopping centers have opportunities to improve vitality by improving pedestrian access and visual appeal of retail space. The extensive sidewalk system is a strength, but crossings and linkages to parks and retail areas need improvement. The expansion of IH-35E could have a major impact on Fox Avenue Corridor so it is viewed as both a threat and an opportunity. A significant threat found was the significantly lower percentage of ISD funds going to schools in this study area.

Demographic & Economics

Strengths:

1. Stable property value
2. Adequate median income
3. Working population (Median Age: 33)
4. Good overall city income
5. Clustering of related businesses

Weaknesses:

1. Retail vacancy rates
2. Aging housing stock
3. Underachieving schools

Opportunities:

1. Surrounding residential market
2. Proximity to work areas
3. Ethnic concentration

Threats:

1. IH-35E expansion
2. Commercial development in nearby areas and cities
3. Better housing quality in the surrounding neighborhood

Environmental & Aesthetics

Strengths:

1. Housing stock in good condition.
2. Sidewalks
3. Presence of trees
4. Drinking water quality exceeds state and federal standards.
5. No flood prone areas.

Weaknesses:

1. Development is old and grandfathered out of tree ordinance GDO. Commercial areas are more immediate offenders.
2. Many of the residential areas are not very well maintained and visually unappealing which reflects poorly on both the neighborhoods and the city itself.
3. The commercial areas are acceptable but could be more visually inviting.
4. Some of the residential areas needs minor and major repairs.
5. While there are parks in the city, most parks in the study area are not within walking distance of many of the residential neighborhoods.

Opportunities:

1. Improve the appearance of both the commercial and residential neighborhoods.

2. By making the commercial centers more visually appealing, it will encourage new businesses to locate in the empty stores, as well as entice more consumers to the area.
3. Develop vistas into this neighborhood along Main Street and Bellaire Avenue by adding landscaping and streetscape features.

Threats:

1. Due to appearance of neighborhoods, these areas could experience a decline in housing values, which could lead to an increase in vacancy rates.
2. Perceptions of this area being blighted, when it is not truly blighted, it is merely the housing showing some dated styles and some housing not being maintained as well as it should be.

Infrastructure & Transportation

Strengths:

1. Proximity to airport and IH-35E
2. Adequate sidewalks
3. Relatively light traffic volume
4. Existing infrastructure meets city standards
5. CIP for residential roads

Weaknesses:

1. Underachieving schools
2. No public transportation

Opportunities:

1. Create urban design guidelines to promote pedestrian friendly development and require better pedestrian facilities such as street furniture and landscaping.
2. Improve pedestrian linkages to parks, schools and commercial areas.
3. TxDOT funds from IH-35E to improve streetscapes.
4. Make some school facilities available for public use after hours.
5. Make neighborhood safer for children and elderly by providing traffic calming to reduce the speed of vehicular movement in pedestrian areas near schools, parks and retail areas.
6. DCTA bus service (2009).

Threats:

1. Vehicular speeds along Fox Avenue near elementary schools.
2. IH-35E expansion.
3. Limited mobility options
4. Schools within study area are receiving a lower percentage of funding than other schools within the Lewisville ISD.

Land Use & Zoning

Strengths:

1. Concentration of commercial properties along major roads (Main & IH-35E)
2. Good code enforcement record
3. No major land use non-conformities

Weaknesses:

1. Poor access to some shopping centers
2. Limited access to some parks
3. Commercial areas could be more pedestrian friendly

Opportunities:

1. Improve shopping center access with IH-35E expansion
2. Improve pedestrian linkage, crosswalks

Threats:

1. IH-35E expansion

Implementation

Based on the results of the SWOT analysis implementation strategies were developed to realize the opportunities to improve the conditions within the study area. First design proposals are introduced and then financial alternatives are presented for funding the implementation of these design proposals.

Design

Purpose:

Aesthetic appeal of a community is very important, providing cohesiveness to an area that promotes a sense of community. The challenge lies in the creation of ways to tie seemingly disjointed areas together. However, understanding the purpose of aesthetics to the community must be addressed first. The overwhelming purpose is to promote a sense of place, which gives the residents and businesses pride in their community that lends itself to a purpose and desire to beautify the community, utilize the community, and even attract business from surroundings areas.

Aesthetics are directly linked to appearance and design expectations. By providing design guidelines for a community, the development community has a clear understanding of design expectations. The results directly affect commercial projects, resulting in quality building and site design, and public spaces by providing softscape and unifying design features, such as lighting, signage, and material of sidewalks. The assets of the community can be protected by the application of consistent overall design objectives.

Another important aspect is to create a more walkable oriented community. People are more apt to walk to local businesses if walkways are safe, pleasant, and visually pleasing. Safety of walkways must be given equal consideration, utilizing methods such as traffic calming techniques, well-designated crosswalks, and proper lighting for nighttime use. Visually appealing and pleasant are somewhat interrelated terms, for example trees can soften the hardscape but also provide protection from the hot sun.

Overall aesthetic appeal is very important and at this level is where the look and feel of community begins, however a community's image is defined by the details and individual site accents such as water features, art areas, landscape, public spaces, and

plazas. By encouraging site accents, a more interesting landscape is created which makes for a more unique community. The importance of design guidelines cannot be adequately stressed; the use of plant material and unifying design details defines a community as well as enhancing the community's sense of place.

Benefits of Design Guidelines:

Design guidelines, particularly when applied to commercial areas, can benefit a community in a variety of ways. They help to improve the look and feel of an area and can help to create safer and more attractive places for people to live, work and shop. Design guidelines can stipulate architectural and landscaping standards, signage regulations as well as traffic calming methods. Through the utilization of some or all of these elements distinctive nodes and districts can be enhanced and even created. Distinguishing specific nodes in a community provides a focus for surrounding neighborhoods and a more cohesive connection between residential and commercial areas.

In addition to providing a connection, design guidelines have distinct economic advantages. Design guidelines help to give direction to business owners and developers of what is expected. By inspiring business owners to install a high quality sign (that is appropriate in size, limited in number, and suited to the overall context) or adding some planters, trees or other landscaping elements that screen parking lots and provide shade to people and cars, the overall visual appeal of the building is greatly increased. When places are more visually interesting and welcoming, people are more likely to go there which translates into more customers patronizing the business. Further, Scenic America, a national non-profit, says, "surveys have found that increasing landscaping also increases the property value of commercial real estate."

Nearby Plano and Fort Worth have commercial development design guidelines that determine architectural styles, streetscape and landscape alternatives, etc. but the language in the ordinance is complicated, long and confusing. Manor, Texas (a small town near Austin) has user-friendly urban design guidelines in their expectation of

growth approaching from Austin. Examples of commercial design from the Manor guidelines regarding architecture, signage, streetscaping and landscaping:

Architecture

1. Buildings that represent the local landscape, cultural and residential flavor
2. Sensitive to scale, massing, variation of styles, materials, colors
3. Building placement close to intersections, accessible to pedestrians



Figure ~~3323~~ jan.ucc.nau.edu



Figure 5544: www.algoarchitectural.com



Figure 5545: www.ing/

Signage

1. Signage that reflects buildings architecture
2. Soft lettering, coloring, and background
3. Ground placement and unit consolidation



Figure 7767 from



Figure 7767 www.signworksofla.com

Landscape/Streetscape

1. Variety of native plants and trees in groupings
2. Plantings in islands, medians and entryways
3. Tree canopy along roads and window fronts
4. Use of street furniture, lighting
5. Parking lots broken up by islands, “green space”



www.cedarbendproject.com



www.olivebranches.org



www.signaturelandscapes.com



www.towncenterinfo/by_town/aliquippa/frames_pages/al_frames_right.htm

Design guidelines can also stipulate traffic calming measures or will reference a separate traffic calming program that should be used in conjunction with design guidelines in specified places (such as nodes or districts). Traffic calming measures are implemented to:

1. Encourage citizen involvement in the traffic calming process by incorporating the preferences and requirements of the citizens
2. Reduce vehicular speeds
3. Promote safe and pleasant conditions for motorists, bicyclists, pedestrians, and residents
4. Improve the environment and livability of neighborhood streets
5. Improve real and perceived safety for non-motorized users of the streets
6. Discourage use of residential streets by non-citizens cut through vehicular traffic⁶

Overall, these measures are implemented to increase the safety of an area for both pedestrians and vehicular traffic. Incorporating traffic calming stipulations into the development/redevelopment of commercial centers, will add to the walkability and pedestrian friendly environment of an area. In Lewisville at the intersection of Fox and Edmonds, where a more pedestrian friendly environment should be sought, traffic calming measures would greatly increase the safety and livability of the area. Lewisville could look to nearby Fort Worth and Plano which both have a “Neighborhood Traffic Management Program,” for ideas of how to incorporate traffic calming measures in certain places in the Fox Avenue study area.⁷ The benefits of traffic calming and other design guidelines such as quality signage, cohesive architectural and landscape features, are many. From increasing the safety for vehicles and pedestrians and enhancing property values, to making places more aesthetically pleasing and welcoming to business

⁶ US Department of Transportation, Federal Highway Administration, General Objectives of Traffic Calming. <http://www.fhwa.dot.gov/environment/tcalm/part1.htm>

⁷ Fort Worth, “Neighborhood Traffic Calming Program,” <http://www.fortworthgov.org/tpw/NTMPI.htm>.

owners, customers and residents, design guidelines are necessary to create viable, intrinsic places within communities.

Design Examples

The following six figures incorporate the design guidelines and elements detailed in the previous section to render examples for the study area. Figure 8 depicts the intersection of Fox Avenue at Edmonds ~~Avenue~~Lane. Figure 12 shows sections in the study that could be reviewed for improvement projects at the neighborhood level. The commercial area improvement project, in the central portion of the study area, is outlined in Figure 9. Changes to on-street parking layout (see Figure 10 below) can visually ~~widen the width~~ extend the perceived width of the street by using curb edge parking. In lay-by curb parking cuts into pedestrian space on the boulevard, located in the right lane. This method does not impose on the usability of a public boulevard. A pedestrian friendly streetscape is depicted in Figure 11 complete with trees, benches, and safety features. Figure 13 is a rendering of a pedestrian friendly commercial complex, utilizing fountains, benches, and plants.

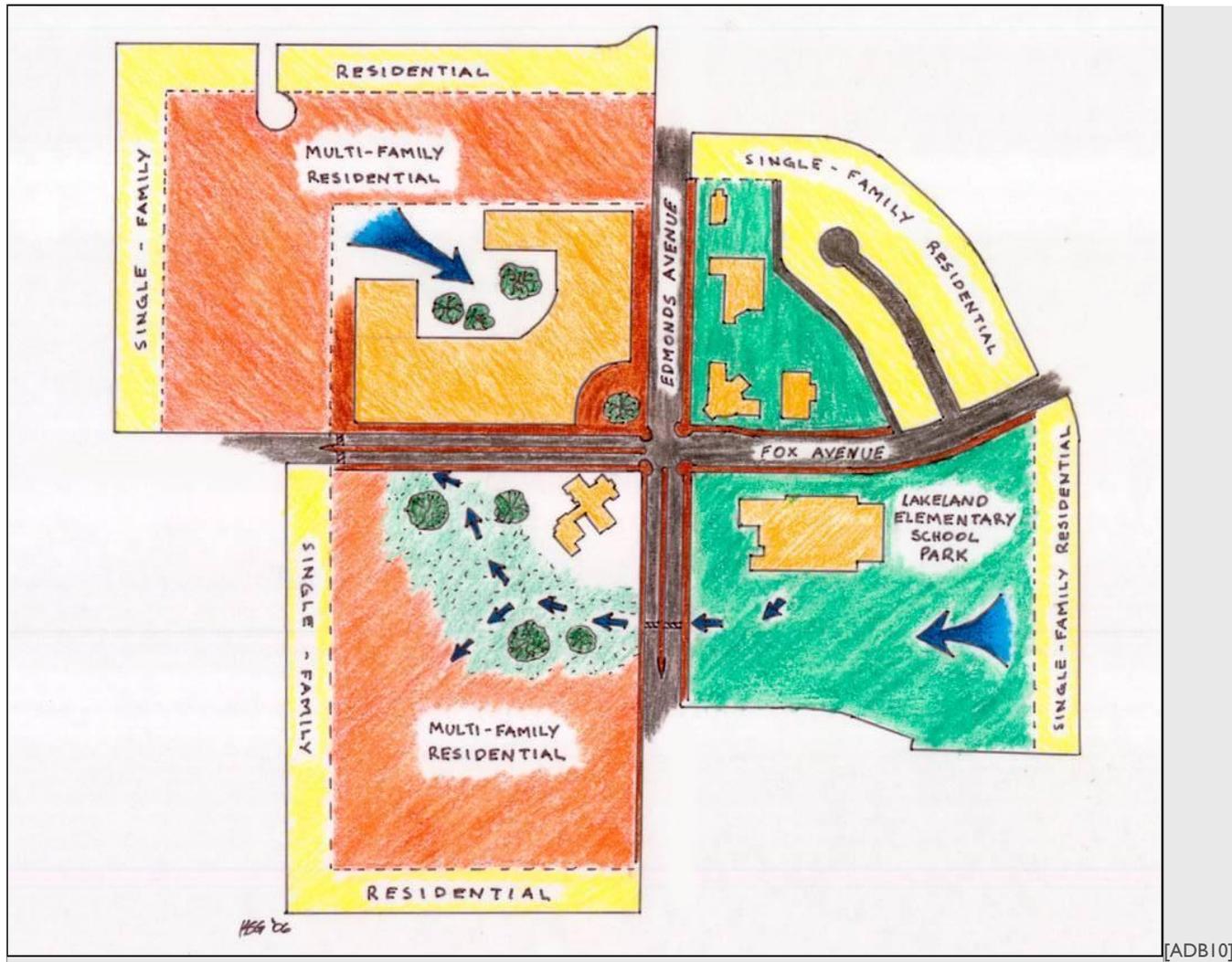


Figure 8878: Fox Avenue & Edmonds Intersection Redevelopment

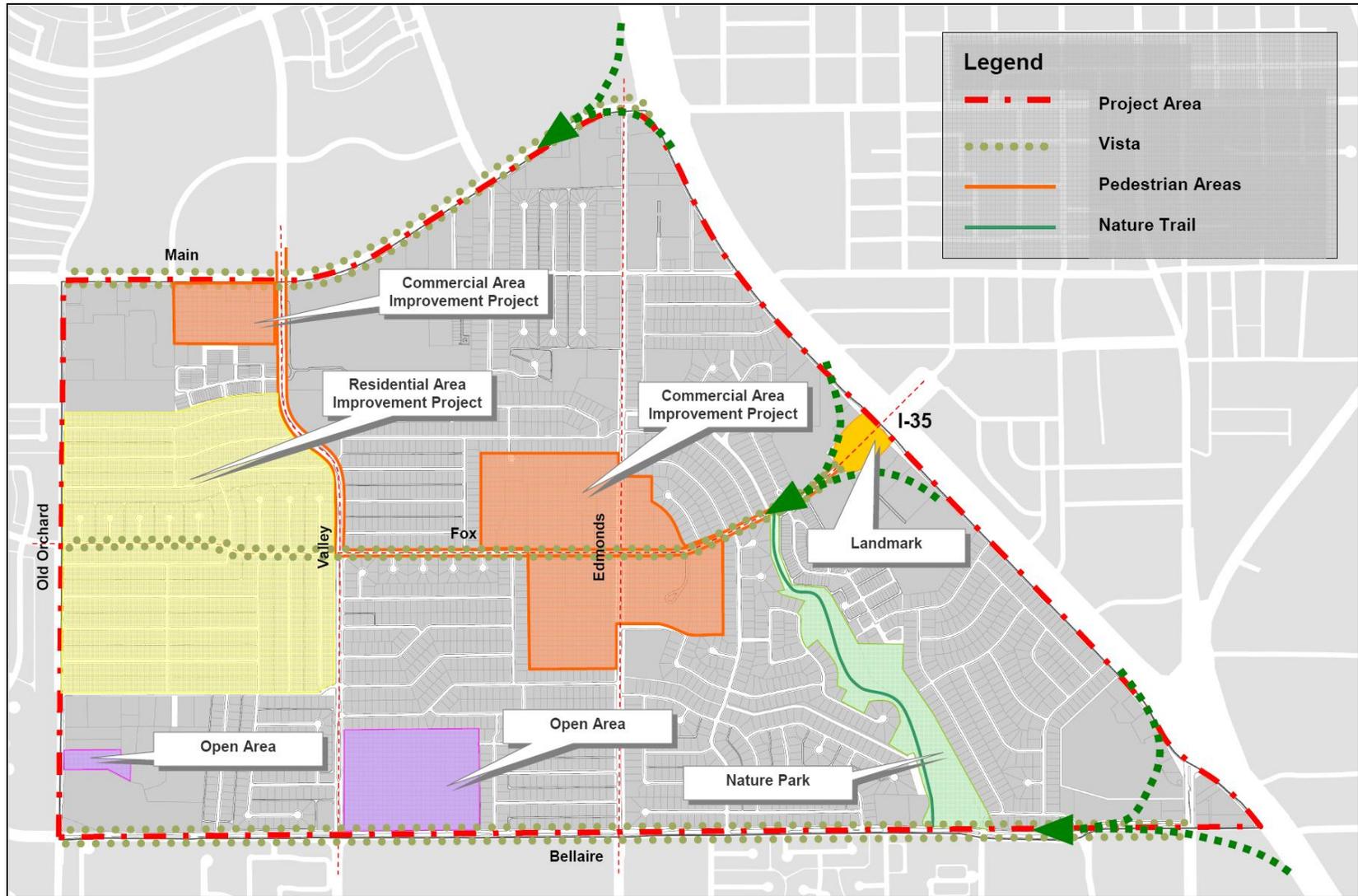


Figure 9989: Study Area Site Layout

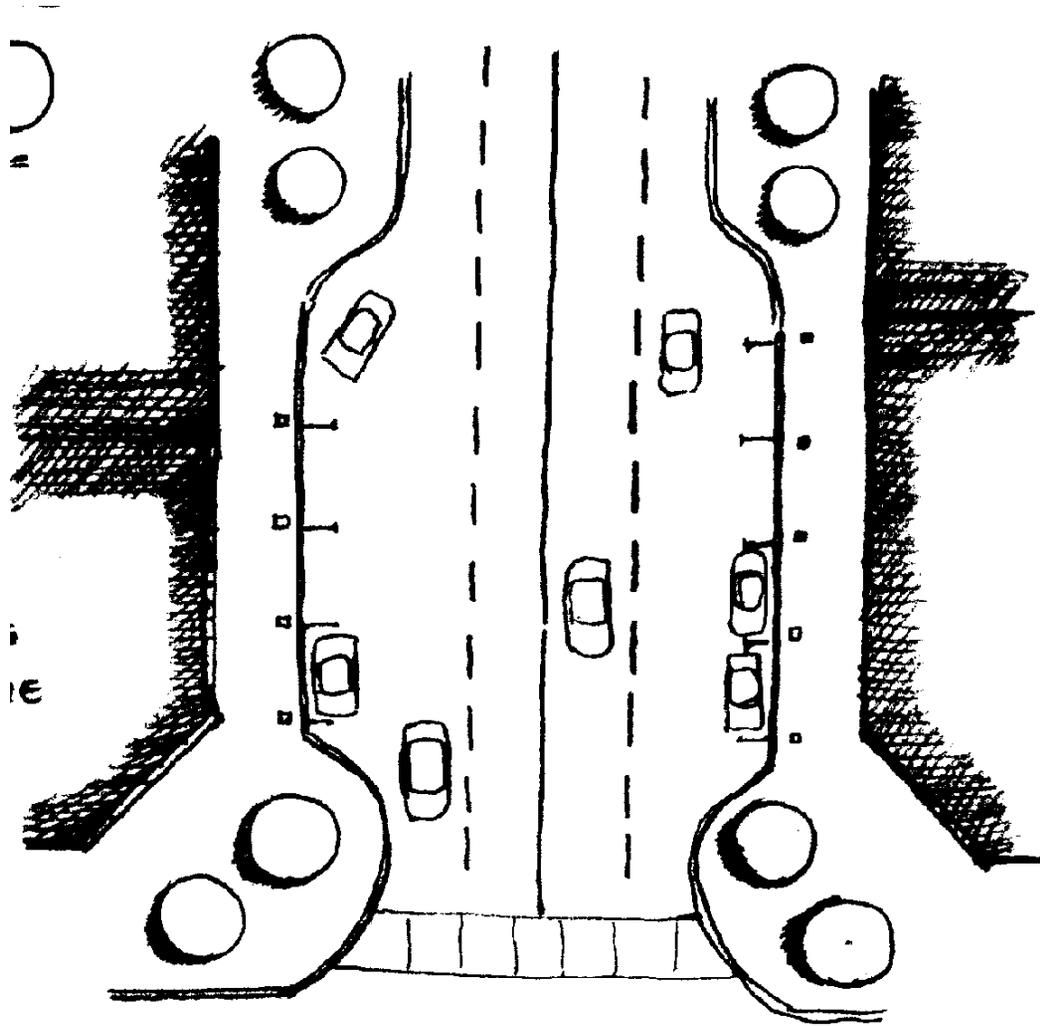


Figure ~~1010910~~: Curb Side Parking

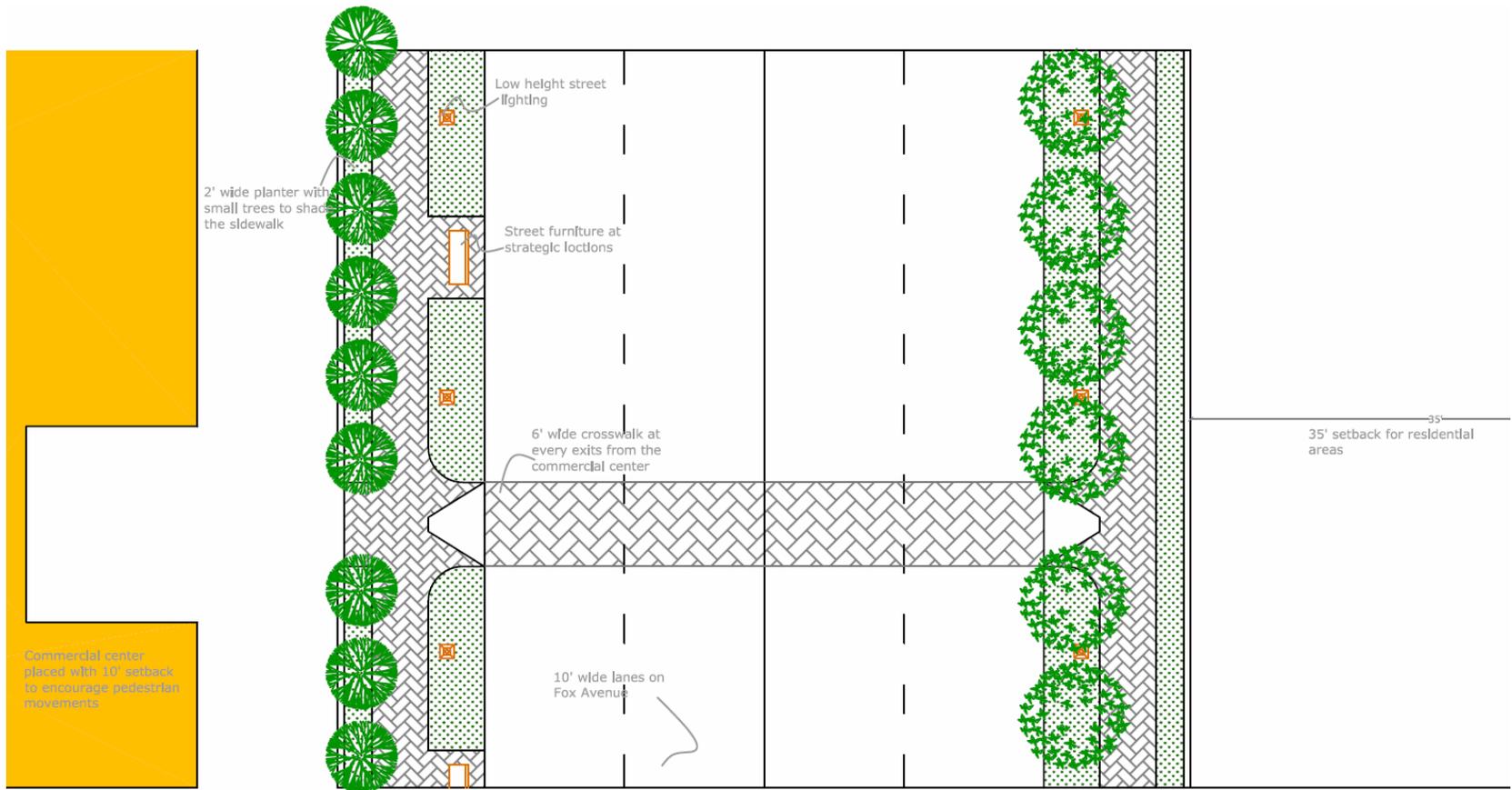


Figure 11-10-1: On Street Sidewalks - Top View

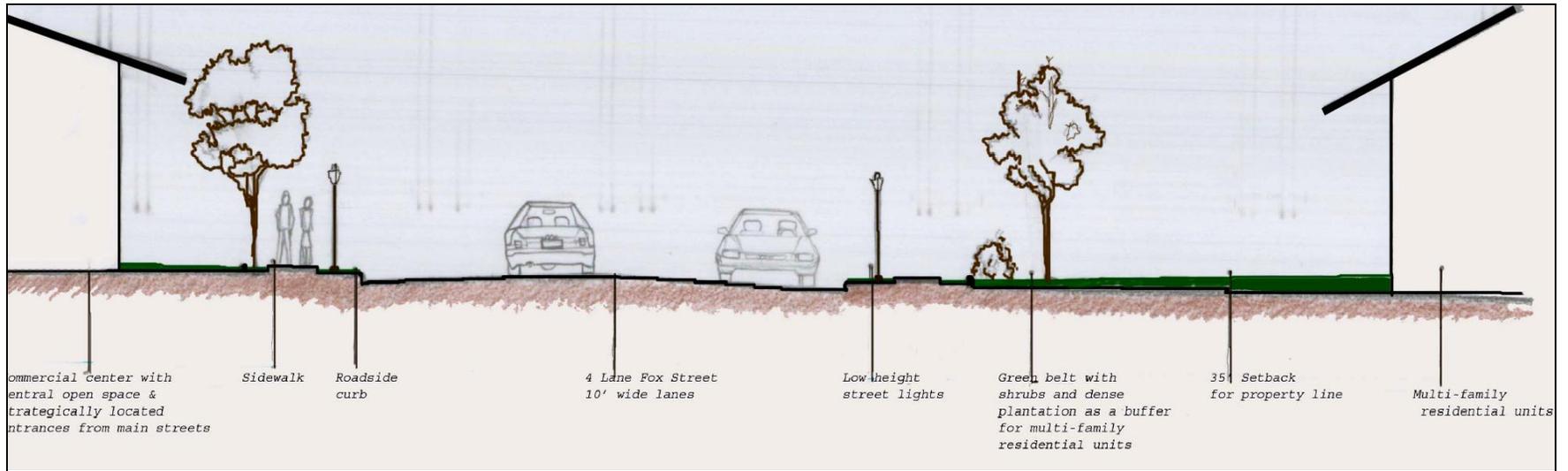


Figure ~~12-21-12~~: On Street Sidewalks - Cut Through View

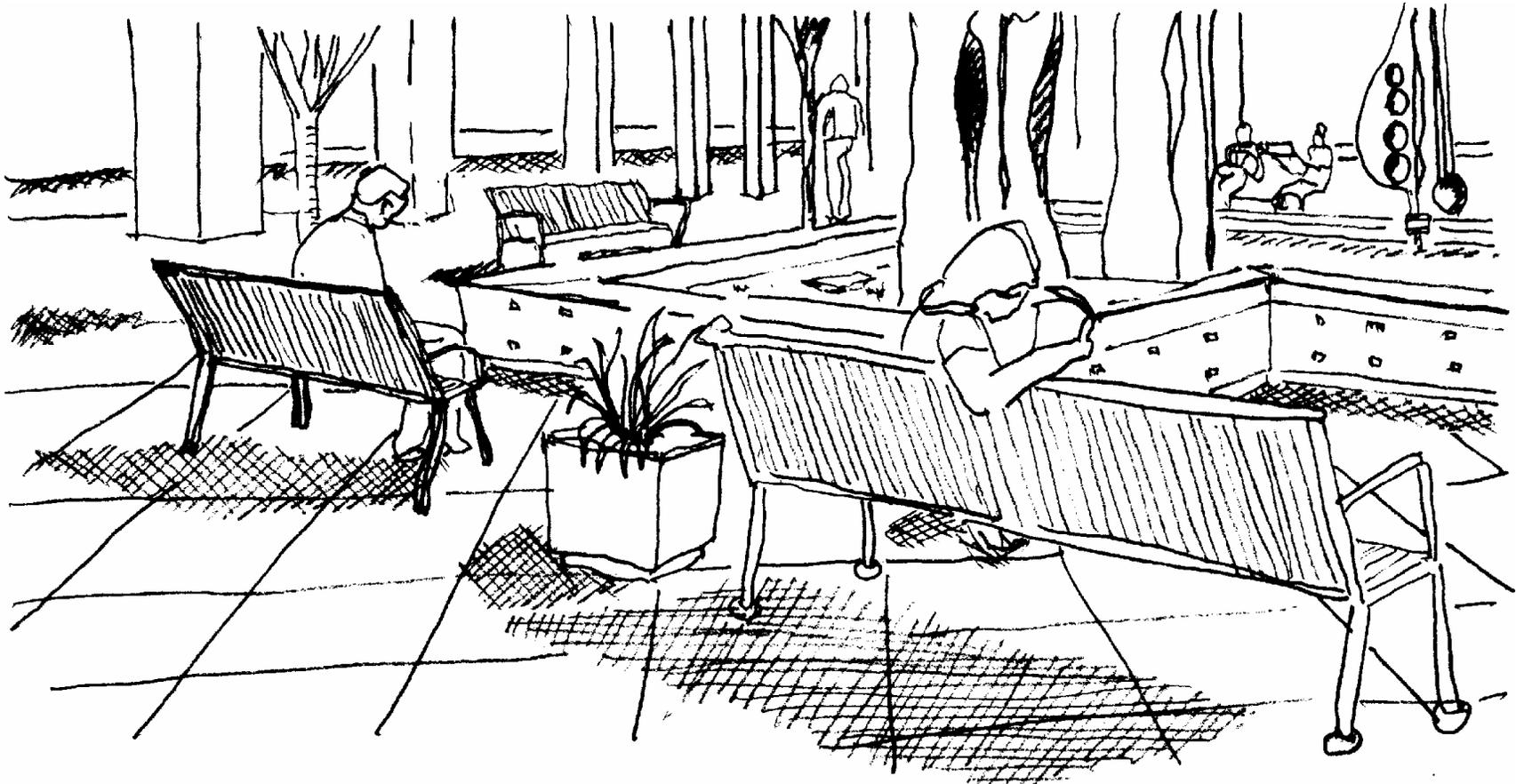


Figure [13131213](#): Commercial Complex Rendering

Neighborhood Associations

It is proposed to create a new neighborhood association, to act as an umbrella organization that would ensure necessary public participation in the decision making, and co-ordinate the efforts by the city and residents. This organization would involve both homeowners and renters since this organization would be concerned with the overall neighborhood. If a civic group is successfully started in the area, then the city should help to bolster the group. Successful city-wide community organizations such as “Keep Lewisville Beautiful” should continue to receive any help the city can provide. A few properties are not in the best condition and need some work. In order to motivate the residents to undertake such repair works, it is proposed to develop a residential improvement fund that provides financial assistance to residents with lower income levels.

Legal

The implementation ideas hinge more on financial incentives than legal statutes. The city’s Land Development Ordinances are quite thorough and do not contain any major legal obstacles that would prevent the implementation of the design concepts identified in the previous section. The City cannot force residents or commercial land owners to improve the appearance of their property since it does not pose a compelling health, safety or general welfare condition. For older businesses seeking to redevelop that might be facing major expenses to meet current GDO codes, redevelopment could be scheduled in stages with conditional permitting based on the completion of each stage.

Financial

The underlying conclusions of the earlier sections emphasize the apparent need to revitalize the study area neighborhood. The present demographic and economic statistics of the neighborhood may not be comparable to the rest of the city but they certainly do not warrant high concern. However if attention is not given to this neighborhood, it may deteriorate into an undesirable situation. The various possible ways of doing so that have been proposed in the other sections of the study can be primarily grouped into physical improvements and policy initiatives. The proposed physical improvements include:

1. Establishing green corridors linking the major greens and providing alternate walking, cycling options.
2. Road right of way corridor improvements to ensure safe walking and cycling throughout the neighborhood
3. Improving access to the existing public places
4. Possibly creating a landmark to foster a sense of identity within the neighborhood

The proposed policy initiatives include:

1. Regulations to ensure an acceptable quality of appearance of the properties
2. Facilitate mixed use options to revitalize the community through a selective zoning overlay in the neighborhood.
3. Tax incentives/ financial support to promote better maintenance of the property facades

All the proposals as listed above are important and play an important role in overall development of the neighborhood. However the success of these proposals hinges on the availability of funds to finance these options. This section attempts to outline the possible financing alternatives available for revitalization of the study area.

Financing neighborhood revitalization initiatives

The allocation of public resources across the various neighborhoods in the city has always been a planner's dilemma. The problem is further compounded when it concerns areas such as the Fox Avenue study area that may have some residents lacking the funds required to perform necessary home maintenance. This problem has been discussed extensively in numerous planning studies and a number of exemplary projects have also been documented. However due to the subjectivity of the problem dictated by the inherent characteristic of each of the neighborhoods and the city they lie within, there are divergent views on financing revitalization through the limited public resources (Downs 1981; Keating, Krumholz, and Star 1996; Stoecker 1997; Bright 2000; Thomas and Hwang 2003; Galster, Tatian, and Accordino 2005). The three common approaches (Galster, Tatian, and Accordino 2005) include:

1. Concentrating public resources in order to leverage private investments for revitalization
2. Ensuring social equity by providing bulk of public investments to neighborhoods in distress
3. Focus resource allocation to individuals and not places

The use of asset-building programs (Ferguson and Dickens 1999) for individuals to help revitalize lower income neighborhoods is now starting to gain popularity (Weber and Smith 2003). It includes schemes like individual development accounts (IIDS), homeownership assistance, cooperative housing, job training and micro-enterprise management. The success of these initiatives rests on the ability of the individuals to add onto their wealth that can then create potential to produce additional income. However, such initiatives require a participative approach and are usually initiated by community based organizations.

In the case of our case study area, there is a respectable level of income that would not allow it to be categorized as a low-income neighborhood. This neighborhood also has a high percentage of working population with a median age of only 29 yrs. However no matter what the manner of investment it is a generally accepted that revitalization is a preferred solution to complete removal (Vidal and Keating).

The recent study by Galster et. al. (2005) on revitalization of neighborhoods in the city of Richmond, VA, suggests that appreciable increase in single family owned homes can be expected only if the total investments in the neighborhood exceed the threshold amount of \$21,000 on average for each block. The investments were utilized for a promoting capital projects as well as some asset building interventions. The success of this intervention rested on the active involvement of the local community and equitable capital investments throughout the neighborhood.

Existing financing options being utilized by the city

The 2005/6 Total City Operating Budget (TCOB) for Lewisville currently lists revenues of nearly \$92 million dollars which are generated from the following three general categories:

Table FS-1: Total City Operating Budget breakdown for FY 2005/6

FUND	AMOUNT
General	\$51,999,189
Utility	\$24,326,388
Other	\$15,621,766

Source: Lewisville FY 2005/6 Budget

Community development funding is primarily allocated from the “General Fund” and represents roughly 5% of the TCOB and 9% of the General Fund. Funds for PIDS, grants (CDBG and others), TIRZ, bonds and Recreation are distributed from “Other Funds” which is roughly 17% of the Operating Budget. PID is quite small right now at

less than \$20,000 but Grants are approaching \$1M and there is nearly \$500,000 from a TIRZ in the Old Town area. Over 10% of the TCOB is General Obligations Bond debt some of which was created for residential road repairs within four subdivisions of the Fox Avenue neighborhood area. CDBG funds ebb and flow due to varying cash inflows and outflows. Several years may pass before CDBG funds are actually spent or a grant is discontinued. The table below lists the distribution of funds for FY 2005/6:

Table FS-2: CDBG breakdown for FY 2005/6

DESIGNATION	AMOUNT
Brick and mortar	\$420,471 (65%)
CDBG Social Service	\$97,031 (15%)
Administrative cost for CDBG	\$133,697 (20%)
TOTAL	\$646,877

Source: Lewisville FY 2005/6 Budget

In addition to the above, the Lewisville comprehensive Plan 2010 identifies a number of funding mechanisms for the proposed interventions in the city. These relevant proposals and associated funding mechanisms have been tabulated below:

Table FS-3: Funding Sources proposed in Comprehensive Plan 2010

Initiatives	Source of Funding	Action Plan
Strengthen Neighborhoods and Housing	Local banks & financial institutions to encourage community lending. And Residents to pay all or	Develop a Neighborhood Assistance Program to address neighborhood stabilization facilitate the creation of neighborhood organizations implement a neighborhood planning process offer target neighborhood code enforcement combined with housing assistance implement a housing inspection program Coordinate community policing program Develop and use a housing investment

Initiatives	Source of Funding	Action Plan
	<p>part of the extra cost of installation with the City funding the operational costs; implementing a public improvement district to pay the extra costs of installation and maintenance</p>	<p>program to improve the environment for reinvestment in existing neighborhoods Increase maintenance of infrastructure in older neighborhoods Encourage community lending within Lewisville Implement Special District Zoning and Regulations to stabilize existing neighborhoods Amend zoning ordinance to permit the creation of conservation district Provide incentives for housing renovation. Develop and adopt a policy dealing with the redevelopment of existing residential neighborhoods develop and implement redevelopment policies develop and implement rezoning policies Develop and implement a Neighborhood Traffic Management Program enforce design requirements through the platting process implement a traffic management program Develop a joint public/private lighting program to increase residents' sense of safety establish joint public/private lighting program enhance lighting on private property</p>
<p>Enhance economic development</p>	<p>I. Work with the Chamber of Commerce, local universities and others to develop assistance programs; work with the SBA in getting their programs to businesses in target areas; investigate with local banks the possibilities of creating</p>	<p>Develop a strategic economic development plan to implement a proactive economic development strategy. create target industries policy develop evaluation criteria for prospects develop a business retention program use joint public/private partnerships provide assistance in organizing business groups develop policy on use of tax incentives</p>

Initiatives	Source of Funding	Action Plan
	<p>loan pools for qualified businesses in target areas; develop public/private development programs including tax abatement, infrastructure cost participation, development fee rebates, public improvement districts, tax increment districts and land buy-backs.</p> <p>2. fund its economic development using 1/2 cent sales tax if approved by the voters</p> <p>3. special assessment paid by property owner to provide funding to PID; Municipality pay assessments against exempt municipal property in the District. Municipality can pay its assessment from general funds, general improvement funds, revenue or general obligation bonds; issue temporary notes and time warrants to pay for the improvement when improvement is in progress; issue revenue or general obligation bonds on completion; Increase tax collected on improved properties to fund public improvement that induced a raise in tax value</p>	<p>promote quality development consider use of special districts Fund a proactive economic development program using the sales tax for economic development purposes. Consider implementing public improvement districts and tax increment financing districts in targeted areas of the City. establish public improvement districts establish tax increment financing districts</p>

Initiatives	Source of Funding	Action Plan
Revitalize Old Town Lewisville	<p>Fund capital improvements through the City's capital improvement program; use TIF district to supplement City capital projects; funding of the on-going operations of the Business Organization along with enhanced maintenance and promotional activities through the use of a PID.</p>	<p>Develop and implement a program for the revitalization of Old Town Center develop a strong working relationship with the Old Town Business Association create a conservation zoning district for Old Town Center amend development regulations inhibiting rehabilitation and redevelopment Implement financial strategies to fund elements of the program Develop and implement a program for industrial revitalization in the Kealy Addition Area of Old Town Develop Kealy Industrial Area revitalization plan Use targeted business retention program Develop a marketing campaign for Kealy Industrial Area Develop special design treatment for the Main Street corridor within Old Town as part of the road improvements already planned</p>
Ensure Quality Development	<p>Property and infrastructure enhancements can be funded through a PID.</p> <p>Roadway impact fees to fund capital improvements up front and recoup the costs of the improvements during future development.</p>	<p>Adopt strategies for ensuring high quality new development Evaluate rezoning properties currently zoned "Heavy Industrial" to "Light Industrial" Modify industrial zoning standards Consider using a "campus industrial park" zoning district concept Incorporate additional compatibility standards into zoning ordinance Implement strategies for retrofitting existing development to current standards Amend compliance standards Consider alternative funding strategies Develop a program where the City fronts funding for missing thoroughfare links and is reimbursed when development occurs</p>

Initiatives	Source of Funding	Action Plan
		Utilize roadway impact fees
Create strong community image		develop a beautification program to enhance the community's image create program for gateway area improvements develop a beautification policy develop a community tree planting program complete the hike and bike system develop a community outreach program to strengthen communications between the City and its citizens create a "Customer Service" ethic for Lewisville continue, monitor and refine newsletter facilitate open house activities coordinate community volunteers improve quality of audio an video services

Common mechanisms used to generate funds for revitalization projects

In order to develop a comprehensive list of options, several successful neighborhood revitalization projects were investigated in order to analyze their respective funding sources. Most of the case studies were so selected for their similar size and issues as that of Fox Avenue neighborhood. Summary of the selected case studies and their funding sources is given below in Table 2. From reviewing this table it becomes evident that the most common of the funding mechanisms include funding from Community Development Block Grants (CDBG), Tax Increments, City's Neighborhood Revitalization funds, and public-private partnerships. However, with each of the above there are associated special conditions and riders. These have been discussed in detail in the following section.

Table 1: Funding Sources for the Neighborhood Revitalization Projects

S. No.	Project	Nature of Intervention	Financial Outlay	Funding Mechanism
1	Residential Façade Grant in Boynton Beach, Florida	The housing condition is as similar as that in Lewisville that most houses need minor repair	Matching grants of up to \$15,000 to single family owner occupied residential property owners.	Property Tax Increment
2	South End of City of Albany Neighborhood Revitalization	Reuse abandoned structures; establish a residential parking permit system, enhance streetscape and add parking; promote owner-occupied housing.	\$33,390,000	Multiple funding resources coming from Federal, State, Local, Private levels.
3	City of Shaker Heights Neighborhood Revitalization Department	Preserve and improve existing housing stock and building initiative encouraging energy efficiency and environmentally friendly new construction	N/A	1. Exterior Maintenance Grant 2. The heritage Loan Program 3. Owner-occupants can borrow up to 90% of the combined cost of purchasing and upgrading a single-or two-family property within the City of Shaker heights, and receive a grant of up to 10% of the cost of remodeling work
4	Fort Worth Public Improvement District	Petition of the property owners to pay self-imposed tax to pay for enhanced services and improvements in the district	Budget for 2002/03 and 2003/04 is \$0.19 per \$100.00 of assessed value, for 2004/05 and 2005/06 is \$0.18 and \$0.17 respectively	Self-imposed tax by each property owner based on the annual assessment of property

S. No.	Project	Nature of Intervention	Financial Outlay	Funding Mechanism
5	Jaycee Park Neighborhood Revitalization Program	Park Project	\$98,800	CDBG (56%), Private Sources (Kimberly-Clark Corp. (25%), Fundraising (14%), Appleton Area Jaycees Donation(4%), State Farm Insurance Grant (1%)
		Housing Rehabilitation Project	\$312,736	City Housing Rehabilitation Fund (83%), City Neighborhood Revitalization Project (17%)
7	Industrial Corridor to Community Park: Brownfield		NA	Brownfield Assessment Pilot Grant from EPA (\$200,000), Federal Highway Administration, Economic Development Administration, and many private contributors
8	Minneapolis Neighborhood Revitalization Project		NA	Minneapolis Community Development Agency's (MCDA) Common Project (\$20 million annually)
9	The Richmond Neighborhood revitalization	Housing quality deteriorating	297000	CBDG, Private sectors
		Median Housing values falling		
10	Quality of life Community improvements, Greeley , Colorado	Landscape, Streetscape, Gateway / Entryway, Public art, Elimination of visual distraction	4 Million	Temporary increase in local sales tax
11	Wolf Penn Creek TIF, College Station, TX.	CIP, Trails, Amphitheatre, Infrastructure improvements	2.3 million + \$1,860,000	Ad Vlerom Tax increase caused by TIF

S. No.	Project	Nature of Intervention	Financial Outlay	Funding Mechanism
12	Business Improvement districts, San Diego	Landscape, Streetscape, Gateway / Entryway, Public art, sidewalks, drains, bus stop, and overall aesthetics	\$ 1 Million annually	Businesses owners pay extra fee for improvement in their area
13	Shirlington road revitalization study	Improving transit oriented facility, Build parking garage	N.A	Tax incentives, Transportation agencies (DOT)

Source: Detailed studies conducted by the students

Community Development Block Grant (CDBG) Programs

Community Development activities include many different programs that provide assistance to a wide variety of grantees. Begun in 1974, the Community Development Block Grant (CDBG) is one of the oldest programs in HUD. The CDBG program provides annual grants on a formula basis to many different types of grantees through several programs. Some of the funds could be used for the redevelopment in Lewisville study area are:

Entitlement Communities: This program provides annual grants on a formula basis to entitled cities and counties to develop viable urban communities by providing decent housing and a suitable living environment, and by expanding economic opportunities, principally for low- and moderate-income persons⁸

State Administered CDBG: States participating in the CDBG Program award grants only to units of general local government that carry out development activities. Annually each State develops funding priorities and criteria for selecting projects.

Section 108 Loan Guarantee Program (Section 108 Program): Community Development Block Grant (CDBG) entitlement communities are eligible to apply for a guarantee from the Section 108 Loan Guarantee program. CDBG non-entitlement communities may also apply, provided that their State agrees to pledge the CDBG funds necessary to secure the loan. Non-entitlement applicants may receive their loan guarantee directly or designate another eligible public entity such as an industrial development authority, to receive it and carry out the Section 108 assisted project.

Renewal Communities/ Empowerment Zones/ Enterprise Communities (RC/EZ/EC): This is an innovative approach to revitalization, bringing communities together through public and private partnerships to attract the investment necessary for sustainable economic and community development.

⁸ N Mayer, L Keyes, , [City Government's Role in the Community Development System](http://www.urban.org), 2003, www.urban.org, accessed on 02/25/2006

The annual appropriation for CDBG is split between states and local jurisdictions called "entitlement communities". Entitlement communities are central cities of Metropolitan Statistical Areas (MSAs); other metropolitan cities with populations of at least 50,000; and qualified urban counties with populations of at least 200,000 (excluding the population of entitled cities). States distribute the funds to localities who do not qualify as entitlement communities⁹.

HUD determines the amount of each grant by a formula which uses several objective measures of community needs, including the extent of poverty, population, housing overcrowding, age of housing and population growth lag in relationship to other metropolitan areas¹⁰.

Tax Increment Financing

Tax increment financing (TIF) is a way for governments (usually municipal authorities) to help finance new capital projects by taking advantage of expected property tax returns. A city, for example, may designate as a TIF district a plot of land that is planned to be redeveloped. Then the city can borrow against expected increased tax revenues to build infrastructure such as sewers and transportation services. The local taxing body freezes property values within a TIF District. Bonds are then issued to make the infrastructure improvements needed to encourage and promote the development. This, in turn, leads to higher property tax revenues. The increased assessed value is used to pay off the bond issue that was necessary to finance the improvements¹¹.

Originally created to help develop underdeveloped land, such as abandoned industrial sites, it has been increasingly causing controversy in the United States. Controversy includes the criteria, the use of eminent domain, and who does the TIF

⁹ Community Development Department, City of Cambridge, Massachusetts.
http://www.ci.cambridge.ma.us/CDD/cdbg/cdbg_faq.html, accessed on 02/28/2006

¹⁰ U.S. Department of Housing and Urban Development, www.hud.gov, accessed on 02/28/2006

¹¹ Tax increment financing, http://en.wikipedia.org/wiki/Tax_increment_financing, accessed on 02/27/2006

benefit. It is seen as a good tool from the position of politicians, business owners and real estate developers. It can help get money to fix up school buildings, to build police and fire stations, and it helps businesses by providing monies to them. Politicians can claim that they don't have to raise taxes for these 'improvements'. Without the TIF, development of the area will stagnate.

It is seen by advocates of the poor, liberals and progressives as a poor tool for urban renewal. It has been abused by many politically-connected groups to build things like private golf clubs, private polo grounds, private airports, and improve properties owned by religious institutions. There is a lack of good bookkeeping in many TIFs. An area, especially in large urban areas, will improve without the use of TIF, usually faster than expected.

There will always be discussions regarding the pros and cons of any finance mechanism or process. Some of the positive aspects are: flexibility, public improvements created without the use of existing property taxes, and a means for a local solution for economic development (compared to diminishing federal and state support). One of the arguments frequently brought up opposing TIF is that the School Corporations (local taxing units) will not receive any of the incremental revenue for the improved area during the longevity of the TIF allocation area. An answer to that argument is that the School Corporation will still receive their portion of the base assessed value of the area, so no loss to them should occur. Although they generally will not receive any of the incremental assessment, it can be argued that without TIF being used as the finance mechanism, there may not be any improvements in the area. After a bond is retired, it is quite possible that the other taxing entities (including the School Corporation) will benefit from the entire assessed value from the area¹².

Local Initiatives Support Corporation (LISC)

LISC helps resident-led, community-based development organizations transform distressed communities and neighborhoods into healthy ones – good places to live, do

¹² Tax increment financing, <http://www.warsawcity.net/taxincfin.htm>, accessed on 02/27/2006

business, work and raise families. By providing capital, technical expertise, training and information, LISC supports the development of local leadership and the creation of affordable housing, commercial, industrial and community facilities, businesses and jobs. LISC mobilizes corporate, government, and philanthropic support to provide CDCs with:

1. Loans, grants, and equity investments;
2. Technical and management assistance;
3. Local, statewide, and national policy support¹³.

State Infrastructure Bank (SIB)

State Infrastructure Banks (SIB) were authorized in 1995 as a part of the National Highway Designation Act (NHS) to help accelerate needed mobility improvements through a variety of financial assistance options made to local entities through state transportation departments. The overall goal of the SIB program is to provide innovative financing methods that will add to the list of options available to communities to assist them in meeting their infrastructure needs. The SIB program allows borrowers to access capital funds at or lower-than-market interest rates. The Texas Department of Transportation (TxDOT) administers the SIB program in Texas¹⁴.

The SIB used federal and state funds to provide the initial capitalization of the Bank. The SIB offers eligible customers a range of loans and credit enhancement products. Also, the SIB offers its financial services to finance or financially enhance transportation projects which meet its selection criteria. As loans are repaid to the SIB, additional assistance will be granted for more transportation projects. The SIB, in effect, is a revolving loan fund.

In Texas, SIB financial assistance can be granted to any public or private entity authorized to construct, maintain or finance an eligible transportation project. Projects must be eligible for funding under the existing federal highway rules (Title 23) to comply with SIB requirements. This usually requires a project to be on a state's highway system

¹³ Local Initiatives Support Corporation , <http://www.lisc.org/section/products/loans>, accessed on 02/28/06
e Infrastructure Bank. At <http://www.dot.state.tx.us/moneymatters/facts.htm>. Accessed on 02/25/2006

and included in the statewide Transportation Improvement Plan. Work eligible for the program's funding in Texas includes planning and preliminary studies; feasibility, economical and environmental studies; right of way acquisition; surveying; appraisal and testing; utility relocation; engineering and design; construction; inspection and construction engineering.

Benefits of using SIB

According to TxDOT, they are able to fund only 36% of the needed transportation projects in Texas. Due to lack of funds, TxDOT funds only high priority transportation projects. However, a project considered a very high priority by one community, may not be ranked high enough on a statewide basis to receive funding for several years. If the City of Lewisville wants the project completed faster, it could borrow money from the SIB and advance the project by several years. Early completion of the proposed transportation project would generate additional economic development; the neighborhood may receive enough revenue from the increased tax base to easily pay the financial assistance from the SIB. Thus, the City could get its project completed much sooner with little or no additional costs¹⁵.

Public – Private Partnership

A Public Private Partnership is a partnership between the public and private sector for the purpose of delivering a project or service which was traditionally provided by the public sector¹⁶. A public private partnership exists when public sector joins the private sector (like civic-groups, community-based organizations, families, and citizens) in pursuit of common goal¹⁷.

¹⁵ State Infrastructure Back: Applicant's Handbook. At <ftp://ftp.dot.state.tx.us/pub/txdot-info/fin/sib/handbook.pdf>. Accessed on 02/25/2005

¹⁶ Public Private partnerships. At <http://www.environ.ie/DOEI/DOEIPol.nsf/wvNavView/wwwPPPPartnership?OpenDocument&Lang=en>. Accessed on 02/25/2006

¹⁷ Guide to Successful Public-Private Partnerships. At <http://www.financeproject.org/Publications/ostpartnershipguide.pdf>. Accessed on 02/25/2005

In some types of PPP, the government uses tax revenue to provide capital for investment, with operations run jointly with the private sector or under contract. In other types (notably the Private Finance Initiative), capital investment is made by the private sector on the strength of a contract with government to provide agreed services. Government contributions to a PPP may also be in kind (notably the transfer of existing assets)¹⁸. In neighborhood revitalization project, public private partnership can be used to involve local people and local business in the development process. A brief of a successful example of use of public-partnership in neighborhood revitalization project is given below.

Case Study: Jaycee Park Neighborhood Revitalization Project

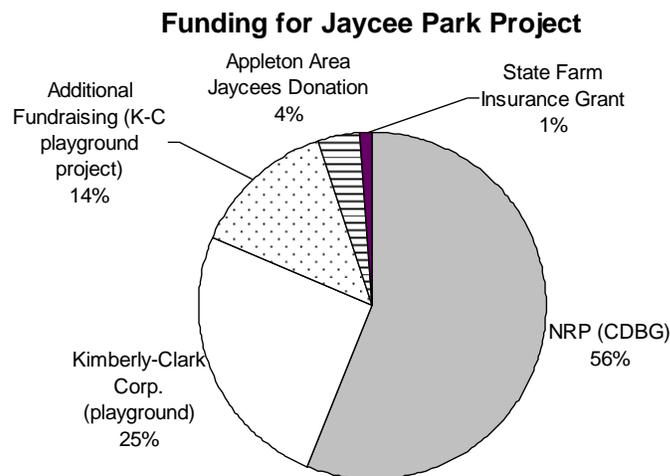
Jaycee Park Neighborhood Revitalization Program was the first project initiated by the City of Appleton, Wisconsin, in September 1996 and it was completed by September 1997. In May 1996, Jaycee Park neighborhood residents responded to a general survey. Residents identified improvements to the park as a high priority. In August 1996, City of Appleton's Parks & Recreation conducted a detailed park survey as part of their 5-Year Plan. The residents identified several key components which were not a part of the 5-year plan. These were Landscaping, Decorative Lighting, New Sidewalk, Permanent Seating/Picnic Tables, and New Playground Equipment.

The project was initiated as part of the City's Neighborhood Revitalization Program. A neighborhood representative committee was formed, which became an integral part of the renovation project. They not only helped in revitalizing the project but also the neighborhood surrounding it. The lists of work performed by the neighborhood representative committee were as follows:

- Developed park conceptual design
- Presented plan to various committees which led to adoption by council as the official 5-year Park Plan
- Actively participated in common council meetings

¹⁸ Public-Private partnerships. Wikipedia. At http://en.wikipedia.org/wiki/Public-private_partnership. Accessed on 02/25/2006

- Assisted in the creation of a neighborhood newsletter
- Planned and organized several neighborhood activities
- Utilized plan to raise funding from park namesake, the Appleton Area Jaycees
- Utilized plan to raise funding for playground equipment from Kimberly-Clark Corporation
- Generated and distributed various communications with residents · Served on various teams/committees relating to park improvements and implementation
- Assisted in selection of park equipment/amenities
- Organized and held fundraising event in neighborhood
- Volunteered with park improvements implementation
- Re-established Neighborhood Watch Program
- Total project cost \$98,800.00, which was funded by both public and private sector. About 56% of funding came of Neighborhood Revitalization Program through Community Development Block Grants (CDBG). The private sector funded the rest of the project.



Funding Source	Amount
NRP (CDBG)	\$55,442.00
Kimberly-Clark Corp. (playground)	\$25,000.00
Additional Fundraising (K-C playground project)	\$13,378.00
Appleton Area Jaycees Donation	\$4,000.00
State Farm Insurance Grant	\$1,000.00

Revitalization project also included the Housing Rehabilitation Projects which had 20 projects. 17 of those were single family homeowner and 3 rentals. Total amount of \$312,736.00 were given as loans, which makes average loans of \$15,636.00 for each project. Most of the funding (83%), for Housing Rehabilitation Projects came from City Housing Rehabilitation Loan fund. And rest amount was fund by the Neighborhood Revitalization Project.

Advantages of Public-Private Partnerships

One of the biggest advantages of the public-private partnership is that it involves the local people, local business along with the City in the development process. This would lead to success of the project.

Selected Mechanisms for Generating Funds for Proposed Interventions in the Study Area :

After the detailed study of the available funding mechanisms and evaluating them with respect to our case study area of Fox Avenue neighborhood, the proposed interventions have been tabulated with possible funding mechanisms in the following table:

Table 2: Possible Funding Sources for Proposed projects

Category	Suggestions	Possible Funds
Park	1. Connect the trail to our neighborhood and establish the connection with the trail to the South	TIF
	2. Encourage schools or churches to hold activities in the park	TIF
	3. Provide two additional accesses on the east side of the Raldon-lake Cities park.	TIF
	4. Improve crosswalk facilities to link the Raldon-Lake Cities park together with the Fox Creek Greenbelt park.	TIF
	5. Provide safe cycle zone along Fox Avenue and Edmonds Dr. so as to connect all the parks surrounding and within the study area together.	TIF
	6. Connect the greenways to each other and to the schools and develop parks along the greenway	TIF
Streetscape	1. Setup guidelines for corridor beautification	CDBG State Administered CDBG RC/EZ/EC TIF SIB
	2. Establish a program for repairing and improving the streets	CDBG State Administered CDBG RC/EZ/EC TIF SIB
	3. Regulate fencing along Fox Avenue.	CDBG State Administered CDBG RC/EZ/EC TIF
	4. A corridor beautification project for Fox Ave, starting at the IH-35E and leading to the central shopping district	CDBG State Administered CDBG RC/EZ/EC TIF SIB
	5. Regulate parking on only one side of the street	CDBG State Administered CDBG RC/EZ/EC TIF
House	1. Propose a small a small grant or loan program for home improvements	CDBG Entitlement Communities RC/EZ/EC TIF
	2. Establish a revolving fund for the neighborhood to make it more affordable to repaint houses	CDBG Entitlement Communities RC/EZ/EC TIF

Category	Suggestions	Possible Funds
	3. Stricter code enforcement	CDBG Entitlement Communities RC/EZ/EC TIF
	4. Help the Diane Town homes with a façade improvement loans and a paint program	CDBG Entitlement Communities RC/EZ/EC TIF
	5. Establish a neighborhood association	CDBG Entitlement Communities RC/EZ/EC TIF
Commercial	1. Provide tax incentive or grant for the central Mexican shopping mall to improve its parking conditions.	CDBG RC/EZ/EC TIF
	2. Apply Overlay zone to the center of the study area at the elementary school and the Hispanic shopping center on Fox Ave. The overlay zone will focus on façade improvements and increasing pedestrian friendliness.	CDBG RC/EZ/EC TIF
	3. Consider façade improvement programs to the shopping centers located at the north edge of the study area, along Main St.	CDBG RC/EZ/EC TIF
	4. Use the adjacent vacant parcels to provide pedestrian gateways to the Main Valley shopping centers and connect the town homes to the shopping center.	CDBG RC/EZ/EC TIF
	5. Install traffic calming devices on the streets surrounding the shopping center.	CDBG RC/EZ/EC TIF
	6. Encourage rear parking to make central shopping area	CDBG RC/EZ/EC TIF
	7. Redevelop Diane Townhomes and the adjacent shopping center into a mixed-use center	CDBG RC/EZ/EC TIF
	8. Institute a greenery ordinance for the town homes and central shopping overlay zones	CDBG RC/EZ/EC TIF
Gateway	1. Identify Fox and IH-35E as a gateway into the neighborhood	CDBG RC/EZ/EC TIF
	2. A corridor icon at the intersection of Fox Ave. and IH-35E	CDBG RC/EZ/EC TIF

Special Financial Recommendations for Park and Recreation Improvements

The additional research on possible funding resources for redevelopment of the neighborhood revealed a number of schemes that focused primarily on development of parks and recreational uses. In regards to the study area neighborhood, the present insufficiencies of parks and recreation facilities are proposed to be mitigated by the following interventions:

- Connect the trail to our neighborhood and establish the connection with the trail to the South
- Encourage schools or churches to hold activities in the park
- Provide two additional accesses on the east side of the Raldon-lake Cities park.
- Improve crosswalk facilities to link the Raldon-Lake Cities park together with the Fox Creek Greenbelt Park.
- Provide safe cycle zone along Fox Avenue and Edmonds Dr. so as to connect all the parks surrounding and within the study area together.
- Connect the greenways to each other and to the schools and develop parks along the greenway

There are a variety of financial resources available for the city at various levels of federal, state, and local levels, to fund the above.

Federal level

Federal land and Water Conservation Act(LAWCON) grant funds: The Land and Water Conservation Fund (LAWCON) program was established by the U.S. Congress in 1964 to provide funding for the acquisition of land for park or open space preservation purposes and the development of outdoor recreation facilities. Eligible Grant Recipients include: 1) Counties, cities and towns, 2) Park districts, 3) Port districts, 4) Tribal governments, 5) State agencies. Grant recipients must provide at least 50% matching funds in either cash or in-kind contributions. Grant authorization is

evaluated based on three criteria: 1) how the project addresses the identified needs and priorities of a statewide comprehensive or strategic plan; 2) technical merits; 3) public/private partnerships¹⁹.

The National Recreational Trails Act (RTA) grant program: The National Recreational Trails Act (RTA) grant program provides funds through the transfer of Federal gas taxes paid on fuel used by off-highway vehicles. These funds are used to develop and maintain recreational trails and trail-related facilities for both motorized and non-motorized trail uses. The program is administered by the Department of Natural Resources (DNR). Funds are available to county and local units of government, State and Federal agencies, school districts, and qualified trail organizations. Motorized and non-motorized projects have been allocated \$202,500 each and diversified trail projects have been allocated \$270,000 in fiscal year 2005. Matching grants for up to 50 percent of the cost of a recreational trail project are available. The application deadline is May 1 of each year²⁰.

State level

TPWD Recreation Grants and Assistance: Texas Parks and Wildlife Department acts as a silent partner in hundreds of communities across the state through its grant, assistance, education, and outreach programs. From the largest metropolis to the smallest rural community these programs help to build new parks, conserve natural resources, preserve historical sites, provide access to water bodies, develop educational programs for youth, and much more. Amongst all the available grants, the following ones are especially suitable for construction and improvement of parks and recreation facilities:

Outdoor Recreation Grants: The Texas Parks & Wildlife Department Recreation Grants Branch administers the Texas Recreation & Parks Account (TRPA) Program and the Land and Water Conservation Fund to assist local units of government with the

¹⁹ Land and Water Conservation Fund. At <http://www.iac.wa.gov/iac/grants/lwcf.htm>. Accessed on 02/26/2006

²⁰ At <http://www.orca.state.tx.us/publications/directory/Recreation.htm>. Accessed on 02/24/2006

acquisition and development of public recreation areas and facilities throughout the State of Texas. The Program provides 50% matching fund, reimbursement grants to eligible local governments. Outdoor Recreation grants are awarded by the Parks & Wildlife Commission twice each year, as funds are available. The maximum amount which may be applied for per application is \$500,000 (\$1 million total project). Only 1 application per 600,000 in sponsor population increment will be accepted per sponsor per cycle. Starting in 2006, there will be one funding cycle and a maximum award of \$400,000 (deadline July 31, 2006). Eligible sponsors include cities, counties, MUDs, and other special districts. Projects must be completed within three years of approval²¹.

Recreational Trail Grants: The Texas Parks and Wildlife Department (Texas Parks and Wildlife Department) administers the National Recreational Trails Fund in Texas under the approval of the Federal Highway Administration (FHWA). This federally funded program receives its funding from a portion of federal gas taxes paid on fuel used in non-highway recreational vehicles. The grants can be up to 80% of project cost. Funds can be spent on both motorized and non-motorized recreational trail projects such as the construction of new recreational trails, to improve existing trails, to develop trailheads or trailside facilities, and to acquire trail corridors. Eligible applicants include Cities, Counties, State agencies, other governmental bodies, and etc. The program limits the amount granted to any single sponsor in one application period to a maximum of \$100,000 (80% of a \$125,000 project). The minimum award per sponsor is \$4,000 (80% of a \$5,000 project) in an application period

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Local Level

Neighborhood and Community Park Capital Improvement Program: The Neighborhood organizations of Lewisville (e.g. Keep Lewisville Beautiful) can also submits a capital improvement requests for the proposed park and recreation improvements to the Mayor and City Council to be included in the City budget for the

²¹ Outdoor Recreation Grant Program. At http://www.tpwd.state.tx.us/publications/pwdforms/media/pwd_1069_p4000_outdoor_grant_application.pdf. Accessed on 02/26/2006

incoming year. Funds can be allocated from the budget in types of net debt bonds, special levies and Neighborhood Revitalization Program (NRP) funds.

Private funds from local entities: The City of Lewisville can also seek funds from private companies or charity entities. For example, in the Jaycee Park Neighborhood Revitalization Program, the park project was supported by private donations of 44% of the total funding, the rest of which was supported by CDBG funds. However, the City of Lewisville is not eligible for CDBG funds since its population exceeds 50,000 (Texas CDBG is only available for cities with population less than 50,000). Under this circumstance, the city can take advantage of private donation and grants for the city matching funds to obtain federal and state funding assistance²².

Among all the listed possible funding resources, it should be noted that most of Federal and State level funding require the matching funds from the city. Therefore, the city needs to consider providing the initial funding to acquire the funding aid. The matching funds for cities, except for above-mentioned private donation and grants, should be considered retrieving from city budget. The 2005-2006 Budget for Parks and Library Development Fund was set from sales tax revenues at \$4.189 million. (Source: Operating Budget Fiscal Year 2005-2006 for City of Lewisville). The city may consider obtaining the matching funds from this part of budget in order to get the funding assistance from higher-level funding programs in regard to the proposed park and recreation improvement.

²² Texas Community Development Block Grant. At <http://www.orca.state.tx.us/index.php/Community+Development/CDBG+General+Info>. Accessed on 02/26/2006

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APPENDICES

A: Assessment of Deed Restrictions

B: Impressions of Lewisville summary

C: Biographies of the students

Assessment of Deed Restrictions

Deed restrictions, as known as “restrictive covenants”, are contractual agreements which impose limits on the use of real property. In contrast to zoning regulations, restrictive covenants are a form of private land control. Such covenants are typically implemented when land is subdivided or sold to control development of the land. Title 11, Chapter 202 of the Texas Property Code, as amended, governs the construction and enforcement of restrictive covenants in the State of Texas. While such covenants are widely used in residential subdivisions, and can even be enforced by city governments (currently Houston, TX is the only city in the state of Texas which can enforce restrictive covenants; Title 11, Chapter 201, Texas Property Code), they are not mandatory and the creation and enforcement of deed restrictions is strictly a private matter.

As part of the analysis of the Fox Avenue Study Area (FASA), a search was conducted to (1) determine if deed restrictions were implemented in any or all of the subdivisions in the area, and (2) to ascertain whether these restrictions were still valid and enforceable. The intent was to determine what mechanisms FASA did at its disposal to regulate the land use and property maintenance. Restrictive covenants are one of the primary means of control neighborhood appearance, and although some covenants are time limited, many are perpetual. Therefore, if deed restrictions were created of the homes in FASA, then it would be very important to examine the provisions of these covenants to see if they could be used to remedy some of the area’s ills. However, a through search of property records at the Denton County Courthouse, and extensive conversations with County Clerk staff and Lewisville planning staff reveal that no deed restrictions were enacted for any homes in FASA. Moreover, it was discovered that historically the City of Lewisville has discouraged the enactment of deed restrictions for

political reasons, fearing the factionalism of home associations which are typically created by restrictive covenants. Therefore, no private means exist to enforce land use, building types and materials or property upkeep and maintenance in FASA. Besides the personal integrity of individual homeowners, the City's development ordinances are the only means of effectively regulating land use and property maintenance in the study area.

The City of Lewisville has a number of development ordinances and regulations which effect land use within the municipality. These include a zoning ordinance, general development ordinance, fence ordinance, sign ordinance, building codes, and design standards. A review of these regulations reveals that they are through yet flexible in their application and enforceability. However, these provisions are primarily concerned with new development or redevelopment of land and not the routine maintenance of properties which would be covered by deed restrictions. Typically, unless a property and/or the structure(s) on the property pose some risk to the community, the City could not intervene.

In summation, although the ordinances and regulations of the City of Lewisville are adequate to regulate the development or redevelopment of property, the absence of deed restrictions in the FASA robs the homeowners of a valuable tool to combat neighborhood blight. Such restrictions would help improve neighborhood appearance by enacting provisions regarding the routine maintenance and use of property which are not covered by city ordinances. The homeowner associations created by deed restrictions would help protect property values by educating property owners and enforcing the deed restriction provisions. Furthermore, the homeowner association fees garnered by deed restrictions could be utilized for neighborhood maintenance and beautification thus alleviating the City of some maintenance responsibilities.

It is recommended that the City encourage the creation of neighborhood association or civic clubs in lieu of homeowner associations as a means of promoting civic pride and citizen participation in neighborhood affairs. Such groups could through interaction and education voluntarily accomplish some of the same goals as homeowner associations.

Impressions of Lewisville

I. The drive around town

I) Entrance evaluation

Comments were unanimous in noting the lack of any special defining characteristics. The town in general seems just like a million other suburbs, and the Fox Avenue area in particular is bland and generic. Main streets were undistinguished, and it was hard to tell where the boundaries of the neighborhood were, so it is difficult to pinpoint an “entry.” There is no sense of arrival in any special place

Specific problems were noted at some intersections:

- I-35 and Fox-Sense of anticipation ascending overpass where there is a temporary vista over the Fox Avenue neighborhood.
- I-35 and Main-Hectic, crowded, too much traffic and signage
- I-35 and Bellaire (via SH121 Business)- Disorienting as an entrance to Fox Avenue neighborhood.
- Edmonds and Bellaire- Monumental power lines dominate the streetscape.
- Valley and Bellaire- Spacious, rural character with large ranch parcel
- Old Orchard and Bellaire- A prominent corner that is undeveloped
- Old Orchard and Fox- Entering into a cozy neighborhood with more variety, closer houses than neighboring newer subdivisions
- Valley and Main- Hectic intersection that is primarily dominated by the massive Lewisville High School campus

2) Your evaluation of town business areas (signs, appearance, size, etc.)

Most observers found little to object to and little to praise. The signage is adequate, most of it is in good shape, it does not obstruct the view of motorists. Some of the strip malls are a bit rundown and need attention to specific issues. The most commercially viable one is the one with the ethnic flavor, and it is the one that needs work to the parking lot. The others seem to have a lot of empty space, so some of the empty asphalt parking area could be improved with the addition of landscaping to soften the area and make it more attractive to shoppers. The strip malls are mostly very car oriented, and pedestrian access is not good.

Specific problems were noted:

- Old Orchard Village East- Nice façade with the towers, tree icons and distinctive angle entry into shops on east side. Too much parking-could something be added in center? Seems to have better pedestrian access than other strip malls with entrances at corner.
- Main Valley-Several vacancies, façade needs repair. Large vacant parking lot dominates center, making it look uninteresting to the consumer.
- Valley Square-Vibrant shopping center with few vacancies. Has lots of energy.
- Lewisville West-Dominated by vast empty parking lot. Several vacancies make this shopping center look abandoned.
- Lakeland Plaza- Dominated by vast empty parking lot. Several vacancies make this shopping center look abandoned.
- Lewisville Plaza-Vibrant, active shopping center with strong Hispanic influence. Parking lot for Terry's supermarket is too large-could some shops or stands be located closer to Fox Avenue? Asphalt needs repairs and façades could use some touch up.

3) Your comments on residential areas

The Fox Avenue area has modestly sized homes that are probably about 20 or 30 years old, and are in pretty good condition. The neighborhoods seem lively, safe and pleasant, with many sidewalks encouraging pedestrian activity, which increases the

quality of life in many ways. Some of the houses are in need of minor repairs or fresh coats of paint, but there were few real problems, and these were mostly confined to the town home areas. The houses may be a bit small for the needs of current occupants, leading to a large number of garage conversions, some of which were very nicely done, others were not. A little bit of extra attention to specific issues like dilapidated fences, tired plants and landscaping, and faded paint would perk the neighborhood up, but in general it seems to provide decent housing for moderate income families.

4) Your comments on

a. Street signs-Standard and in good condition. No problems were noted, but the city may wish to consider adding a city logo or other identification to personalize them and introduce an element that contributes to a sense of identity for the place.

b. Traffic patterns/street conditions-Most streets were in fair condition, and little congestion was observed. There may be isolated congestion at certain time of day, for example near the schools. Streets adjacent to commercial areas tended to be less smooth, indicating higher usage and a need for more frequent maintenance. Some streets could actually be narrowed to make them more pedestrian friendly, for example, Edmonds near Lakeland Elementary and Lewisville Plaza.

c. Welcome signs (at entrance)- Were not present, or were not noticeable. This is a problem that contributes to the lack of identity of the neighborhood.

d. Directional signs to parks, schools, hospitals/clinics, attractions, services (i.e. police) etc. –Again either not present or not noticeable. There were signs for the Civic Center and the high school. Signs on Bellaire noted the Raldon-Lake Cities Park, but provided no directions about where to park and how to access the trail.

5) Your comments on schools

Most schools seemed to be in good condition, well attended and pleasant. The presence of many children walking home was noted as an indicator of a safe family oriented environment.

Specific issues noted included:

- Lakeland Elementary School: apparently overcrowded, temporary buildings in use. This school was the least attractive.
- Lewisville High School: The building is a major landmark, but is monolithic and fortress like, which makes the observer wonder if it is well integrated into the community-are facilities used after school hours?
- Hedrick Middle School: Medians on Bellaire help with street crossing
- Central Elementary School: Brighter than Lakeland Elementary

6) Your comments on parks, playgrounds, athletic facilities:

There are some pleasant parks, but not all of them have easy access to the neighborhood. There needs to be more seating in parks, and walking/biking trails. There seemed to be some empty lots in the neighborhood that could be used as pocket parks with the addition of seating and flowering perennials.

Specific comments include:

- Raldon-Lake Cities Park-Nice park, but too exclusive. Difficult to find parking areas and there are no connections to the park from Creekside Townhomes on the East and Fox Avenue on the north. A stonger connection should be established with the Fox Creek Greenbelt trail that eventually connects to Central Park. Will the new townhomes impinge on the park?
- Austin Kent Ellis Park and Iris Lane Park-Nice neighborhood park that could use another crosswalk at Briarwood.
- Sun Valley Park-A landmark in the Fox Avenue neighborhood that could be further enhanced with directional signs.
- Lakeland Elementary Park-Not so obvious that this is a park.
- Central Park is not easily accessible because of Bellaire, and other playground/park facilities are linked to schools, perhaps reducing their accessibility as well.

7) Other comments:

a. Hospitals/clinics-Nice medical complex on other side of IH-35E. Several dental clinics, Prima Care and a family care center are available in the neighborhood. All seem to be in fine shape.

b. Billboards/advertising-Other than there being too many on the freeway, which produces too much visual clutter, no serious problems were noted. Signage for some of the shopping centers could be made more attractive and interesting.

c. Other-Many fences are beginning to lean over and some have lost a lot of boards. The streetscape could be improved by getting the fences fixed and planting shrubs and small trees in front of them. Overhead power lines ruin the view, particularly along Bellaire and Edmonds. Planting short trees and flowering shrubs near the poles can help reduce their scale and make them less intrusive. The median on Bellaire near Old Orchard is a good example.

II. Walking around town

I) Comments on businesses: appearance, displays, signs, etc.

Overall they were not bad, and the amount and quality of parking is adequate. Most places appear to be well lit. A few problems were noted. Some strip malls need a facelift, and the shopping area near Lewisville High School is becoming shabby. They cannot compete with the commercial areas in other areas otherwise, as is shown by the number of vacancies in strip malls that are basically in good shape. This also makes the observer wonder if the city is overbuilt for commercial. The lack of landscaping in the strip malls reduces their attractiveness. The most pleasant shopping area was the Old Orchard Village East, but it was not fully rented. The most lively shopping area is the “Mexican” shopping area. This could be a real asset to the city, since it is evidently meeting a real market need, and producing some much needed tax revenue.

2) Comments on people:

Most of the people we encountered were friendly and helpful, like the city and like living there. The neighborhoods were fairly active, with no signs of crime or fear. The demographic data show there are many young families in the area, but we also noted the presence of older citizens, which is a good mix for neighborhood stability. There is a strong Hispanic flavor to parts of the area, introducing a welcome note of color and diversity to the otherwise bland urban fabric.

III. Community Information

The brochure obtained at City Hall had nice photos and a good overview of the community. There are plenty of informational materials available in the main service area on the first floor of City Hall. The maps on the wall of the second floor are very informative, inspiring and useful for reference during discussions.

The GIS department has detailed information on various aspects of the community. It would be great if some of this information could be made easily available to the public.

IV. City Hall

The City Hall is a definite landmark, although it is hard to find because it is tucked behind the Main Street shops and access is confusing. The building is very nice, and citizens should be proud of it. Staff is professional, pleasant and helpful.

V. Other stuff

Huge parking lots dominate the shopping areas in the Fox Avenue study area. This makes them seem less pedestrian-friendly in a neighborhood that is basically pretty good for pedestrians, and makes them look almost abandoned in some cases. There is a lot of parking on the street, but this serves to slow traffic in residential areas, making them safer for the residents, especially kids. There were not enough drinking fountains

and benches in the parks. JJ Subs is a nice place to eat lunch, and the Flying Pig, although not in the study area, was a hit.

VI. Wrap up

The community has a strong Mexican flavor. We heard sounds of an active, vibrant community, with cars being repaired, kids playing, musicians practicing, and a few birds (in spite of the season).

Although the study area is obviously well occupied, it lacks an identity and a sense of place. The freeway is so close to some areas that its noise was noticeable. If the freeway is widened, this could be a real issue. The city should ask TxDOT to include buffers in their planning, so the neighborhood doesn't feel so exposed, and its residential character is maintained.

The Adopt-a-Spot idea is nice. It is a good way to get citizens emotionally invested in the looks of the area. The small lot size makes the area easily adapted to mixed uses, and the resulting friendly human scale of the neighborhoods is memorable. The corridor from IH-35E to Edmonds on Fox Avenue is a wasted opportunity; it is a natural gateway that has not been enhanced. The strip malls could be better integrated with the residential areas, which would make them more commercially viable and provide goods and services to the residents without increasing traffic volumes.

Positive elements noted include:

- Friendly people
- Nice parks, even and aquatic center
- Central location, access to freeway and other roads, access to the big mall, the lake
- Few vacant houses
- Lots of activity
- Nice scale to the neighborhoods
- Creekside Townhomes development

- Well-maintained streets and neighborhoods
- Adequate commercial/retail space and parking
- Low crime rate
- Good housing stock
- Pedestrian paths along main roads
- Quiet, safe residential area
- Vibrant commerce
- Good schools
- The use of grid patterns in the neighborhood makes the space very readable, not confusing like neighborhoods with lots of winding roads and cul-de-sacs
- Plenty of decent, affordable housing
- There are still opportunities for development in the study area; it is not completely built out.
- No bars
- Good ethnic mix
- Pedestrians use the streets

Biographies of the Students

Name : **Tariq Al Busaidi**
Home Town : Muscat, Oman
Department : Landscape Architecture & Urban Planning
Degrees Held : Bachelor in urban and regional planning doing my master in urban planning
Short Work History : Working for the ministry of housing, electricity, and water in Oman since 1999

Name : **Leslie Chady**
Home Town : Houston, TX
Department : Landscape Architecture & Urban Planning
Degrees Held : Bachelor of Science (Electrical Engineering)
Short Work History : Over 20 years experience in project management, programming, and enterprise computer system design; with five years dedicated to international arena. Recent work experience includes High School teacher for Business Computing Information Systems and Computer Networking. Currently, graduate researcher with Texas Transportation Institute.

Name : **Christina Croxell**
Home Town : Plano, TX
Department : Landscape Architecture & Urban Planning
Degrees Held : Bachelor of Environmental Design, Texas A&M 2004
Short Work History : Graduate Assistant to Dr. Bright
Two summers working with the Preservation Resource Center of New Orleans
Several years in retail
Some experience as a technical writer for Fujitsu Telecom.

Name : **Stephan Gage**
Home Town : Houston, Texas
Department : Landscape Architecture & Urban Planning

Degrees Held : Associates in General Studies, Houston Community College 1994
 Bachelors of Science in Architecture, Prairie View A&M University 2003

Short Work History : Staff Planner, City of Bryan, Texas-Present
 Planning Intern, City of Bryan, Texas-Aug 2004 to September 2005
 Computer Hardware Specialist, Prairie View A&M University-September 1999 to August 2004
 Information Technology Specialist, Martin-Brower Company, Conroe, Texas-July 1993 to July 1999

Name : **Kevin Gifford**

Home Town : West Columbia, TX

Department : Landscape Architecture & Urban Planning

Degrees Held : Bachelor of Environmental Design, Texas A&M, 2004

Short Work History : Graduate Assistant for Department of Landscape Architecture & Urban Planning, conducting research in preservation of historic public housing under Federal environmental law and the relationship between school setting and children's health
 Interned with Jones & Stokes Environmental Consultants in Sacramento, CA

Name : **Himanshu Grover**

Home Town : New Delhi, India

Department : Landscape Architecture & Urban Planning

Degrees Held : Bachelor of Physical Planning, School of Planning and Architecture, New Delhi.

Short Work History : Everything About Water Pvt. Ltd, New Delhi, India.
 General Manager, Special Projects (September 2000-March 2002)
 Resource Earth Management Plc , New Delhi, India, Technical Director (April 2002-August 2004)
 Indian National Trust for Art and Cultural Heritage, New Delhi, India, Programs Director, Natural Heritage Division (May 1999- August 2004)
 Project Consultant, Natural Heritage Division (May 1998-April 1999)

Name : **Kristina A. Harpst**

Home Town : Lititz, PA

Department : Landscape Architecture & Urban Planning

Degrees Held : BA Historic Preservation, working toward Master's in Urban Planning

Short Work History : Assistant to the Director, Historic Resources Imaging Laboratory, Texas A&M University, College Station, TX
 Assistant to the Conference Coordinator, Colorado Preservation Inc., Denver, CO
 Historic Preservation Intern, Lancaster County Planning Commission, Lancaster, PA
 Student Aide, Department of Historic Preservation, University of Mary Washington, Fredericksburg, VA
 Intern, George Washington's Fredericksburg Foundation - Historic Kenmore, Fredericksburg, VA
 Pennsylvania Historical & Museum Commission, Landis Valley Museum, Lancaster, PA

Name : **Ji Li**

Home Town : China

Department : Landscape Architecture & Urban Planning

Degrees Held : Bachelor of Science in Urban Planning

Short Work History : Assistant Planner 07/03-06/04
 Wuhan Planning and Architectural Design Institute, Wuhan, China Main responsibilities: Performed planning design and architectural design, and negotiated with clients

Name : **Sze Lun Li**

Home Town : Hong Kong, China

Department : Landscape Architecture and Urban Planning

Degrees Held : Bachelor of Engineering (Civil and Structural)

Short Work History : Assistant Civil Engineer

Name : **Jordan Maddox**

Home Town : San Antonio, TX

Department : Landscape Architecture & Urban Planning

Degrees Held : Political Science, Baylor '03

Short work history : U.S. Congress – 2003
 Brooks City Base Redevelopment – 2004
 Carter & Burgess – 2005

Name : **Dipti Mathur**

Home Town : Jaipur, India

Department : Landscape Architecture & Urban Planning

Degrees Held : B. Architecture, S.C.E.T, Surat. India, 2003

Pursuing Masters in Urban Planning, Texas A and M University.
Short Work History : Planning Intern, Metropolitan Transit Authority of Harris County, Houston (METRO). Summer 2005. Worked with Capital planning dept., METRO Safety and Rail Operations department
Assistant Architect, Design Core, Surat ,India. June 2003- Aug 2004. Worked as Architect in renowned architectural firm gaining hands of experience on design and execution of residential, commercial and institutional projects
Lecturer: Govt. Polytechnic Institute, Surat , India. Visiting faculty from Dec.2003 to June 2004. Taught Architectural Design and building material and services courses

Name : **Madhu Narayanasamy**
Home Town : Dindigul, India
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Degrees Held : working on Masters in Urban Planning, Bachelors of Architecture
Short Work History : Graduate Research Assistant, Texas Transportation Institute, College Station, Texas, US
Urban Planner, Intern, City of El Paso, El Paso, TX

Name : **Rajat Parashar**
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Department : Landscape Architecture & Urban Planning
Degrees Held : Bachelor of Urban Planning
Short Work History : Senior Executive, Projects, Kaizer Spatial Solutions Pvt. Ltd., New Delhi, India May 2002 – June 2004
Research Investigator, National Institute of Urban Affairs, New Delhi, India, Nov 2001 – Apr 2002
Freelance Consultant, National Institute of Urban Affairs, New Delhi, India, Oct 2000 – Dec 2000
Central Road Research Institute (CRRRI), New Delhi, India, Summer 2000
Summer Intern, Lea Associates South Asia Ltd., New Delhi, India, Summer 1999

Name : **Lee Ann Roman**
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Degrees Held : Associate and B.S. – Political Science
Short Work History : Worked as a communications operator dispatching for police, fire, and EMS since July 1999

Name : **Jon Toffer**
Home Town : Richland, WA
Department : Landscape Architecture & Urban Planning
Degrees Held : Bachelor of Science (Chemical Engineering)
Short Work History : For nearly six years I worked in Arizona as a semiconductor process engineer helping to sustain and improve microprocessor manufacturing processes. Prior to that I had worked as an engineering intern as part of a systems engineering group that developed detailed strategies for an environmental remediation project in Washington

Name : **Sudhish Verma**
Home Town : Ajmer, India
Department : Landscape Architecture & Urban Planning
Degrees Held : Bachelor of Architecture, M.S. University of Baroda, Vadodara, India (Jun 2001)
Diploma in Project Management, Ahmedabad Management Association, Ahmedabad, India (Apr 2002)
Short Work History : Student Technician, Texas A&M University, College Station, TX (Jan 2006 – Present)
Rail Services Intern, San Mateo County Transit District, San Carlos, CA (Jun 2005 – Aug 2005)
Graduate Research Assistant, Texas A&M University, College Station, TX (Sep 2004 – Dec 2005)
Project Manager, Environmental Planning Collaborative, Ahmedabad, India (May 2003 – Jul 2004)
Project Associate, Environmental Planning Collaborative, Ahmedabad, India (Oct 2001 – Apr 2003)