

**ORDINANCE NO. 747**

**AN ORDINANCE OF THE TOWN OF WESTLAKE, TEXAS, ADOPTING A COMPREHENSIVE PLAN FOR THE TOWN; AMENDING THE CODE OF ORDINANCES, CHAPTER 62, ARTICLES I SECTION 62-1 – 62-3 AND II SECTIONS 62-31 – 62-32, PROVIDING A CUMULATIVE CLAUSE; PROVIDING A SEVERABILITY CLAUSE; PROVIDING A SAVINGS CLAUSE; AUTHORIZING PUBLICATION; AND ESTABLISHING AN EFFECTIVE DATE.**

**WHEREAS**, the Town of Westlake, Texas is a general law Town; and

**WHEREAS**, previously, in 1992, an Advisory Committee was appointed to work with the Town's consultants and a comprehensive plan was developed that was adopted on August 24, 1992 after public hearings and recommendations from the Planning and Zoning Commission; and

**WHEREAS**, the Town selected MESA Planning, to assist the Town in gathering information and to assist in the development of, and amendment to, the 1992 comprehensive plan for the Town; and

**WHEREAS**, the Town Council appointed a Planning Steering Committee to work with the Town's consultants in developing amendments to the Town's Comprehensive Plan; and

**WHEREAS**, multiple public hearing meetings Steering Committee meetings were held including three meetings dedicated for the public, including residents and citizens, to provide input concerning the development of the comprehensive plan; and

**WHEREAS**, public hearings were held by the Planning and Zoning Commission on January 21, 2014 and by the Town Council on February 23, 2014; and

**WHEREAS**, the comprehensive plan will be part of a continuous and ongoing planning process designed to implement the intent and desires, and to protect the health, safety and welfare of the present and future residents of Westlake. The plan addresses the types and intensities of land uses, roadway systems, community services, utility systems, environmental concerns and urban design standards in a manner which is consistent with the Town's objective of creating a community which builds on its existing high quality office park development and rural residential character, and which will maintain and enhance the natural features of the Town; and

**WHEREAS**, the plan addresses the issues of environment, urban design, utilities, transportation, community services, government, and land use in terms of current knowledge of existing conditions and therefore, as the plan is implemented and new conditions arise, the plan may be reviewed and, if necessary, modified to reflect the Town's informed response to the new circumstances; and

**WHEREAS**, the comprehensive plan includes but is not limited to provision on land use, transportation, and public facilities; consists of a coordinated plan organized by subject and geographic area and will be used to coordinate and guide the establishment of development regulations or any amendments thereto;

**WHEREAS**, pursuant to Local Government Code chapter 213, the comprehensive plan has been reviewed at public hearings as set out above, at which the public was given the opportunity to give testimony and present evidence and has been reviewed by the Town’s planning commission and department, and all requirements of section 213.003 of the Local Government Code and all requirements of chapter 213 have been met;

**WHEREAS**, upon the recommendation of the Planning and Zoning Commission, the Town Council of the Town of Westlake, Texas, is of the opinion that it is in the best interests of the town and its citizens that the amendments should be approved and adopted.

**NOW, THEREFORE, BE IT ORDAINED BY THE TOWN COUNCIL OF THE TOWN OF WESTLAKE, TEXAS:**

**SECTION 1:** That all matters stated in the preamble are found to be true and correct and are incorporated herein as if copied in their entirety.

**SECTION 2:** The Comprehensive Plan attached hereto as *Exhibit "A"* is hereby adopted and designated as the Comprehensive Plan for the Town of Westlake.

**SECTION 3:** That all land use assumptions contained in said Comprehensive Plan are hereby specifically approved.

**SECTION 4:** That any other plan heretofore adopted by the Town is hereby amended to reflect all changes, modifications, and use assumptions, and other information contained in the Comprehensive Plan adopted herein.

**SECTION 5:** That Chapter 62 “Chapter 62, Articles I Section 62-1, 62-2, 62-3 and II Sections 62-3, and 62-32, of the Town of Westlake Code of Ordinances, as amended, is hereby amended as follows:

**ARTICLE I. - IN GENERAL**

Sec. 62-1. - Official map of town reaffirmed.  
The map attached to Ordinance No. 747, adopted by the board of aldermen is hereby reaffirmed as the Official Map of the Town of Westlake, Texas reflecting the incorporated area of the town.

Sec. 62-2. - Thoroughfare Plan incorporated.  
The Thoroughfare Plan attached to Ordinance No. 747, as Exhibit "A," as now or hereafter amended, is hereby adopted as a part of this section as if set out at length

in this section. Copies of such Thoroughfare Plan have been filed as required in the office of the town secretary and are available to the public.

Sec. 62-3. - Open Space Plan incorporated.

The Open Space Plan enacted in Ordinance No. 747, as now or hereafter amended, is hereby adopted as a part of this section as if set out at length in this section. Copies of such Open Space Plan have been filed as required in the office of the town secretary and are available to the public.

## ARTICLE II. - COMPREHENSIVE PLAN

Sec. 62-31. - Adoption.

The Town of Westlake Comprehensive Plan, adopted February 2015, attached to Ordinance No. 747 as exhibit "A," as now or hereafter amended, is hereby adopted as a part of this section as if set out at length in this section. Copies of such Comprehensive Plan have been filed as required in the office of the town secretary and are available to the public.

Sec. 62-32. - Amendment of prior plans.

Any other plan heretofore adopted by the town is hereby amended to reflect all changes, modifications, land use assumptions, and other information contained in the Comprehensive Plan adopted in this article.

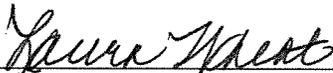
**SECTION 6:** It is hereby declared to be the intention of the Town Council of the Town of Westlake, Texas, that sections, paragraphs, clauses and phrases of this Ordinance are severable, and if any phrase, clause, sentence, paragraph or section of this Ordinance shall be declared legally invalid or unconstitutional by the valid judgment or decree of any court of competent jurisdiction, such legal invalidity or unconstitutionality shall not affect any of the remaining phrases, clauses, sentences, paragraphs or sections of this Ordinance since the same would have been enacted by the Town Council of the Town of Westlake without the incorporation in this Ordinance of any such legally invalid or unconstitutional, phrase, sentence, paragraph or section.

**SECTION 7:** All ordinances of the Town in conflict with the provisions of this Ordinance are repealed to the extent of that conflict, except that this Ordinance by itself shall not affect any change to any existing zoning districts, zoning classifications, or other zoning regulations or any designations of current zoning, and provided further that, if possible, no ordinance is repealed just based upon the reference to a prior comprehensive plan or the Ordinance thereby adopting such prior plan, but all references shall be understood, wherever possible, to be replaced with a reference to this Ordinance and the comprehensive plan attached hereto.

**SECTION 8:** This ordinance shall take effect immediately from and after its passage as the law in such case provides.

**PASSED AND APPROVED ON THIS 2<sup>nd</sup> DAY OF MARCH 2015.**

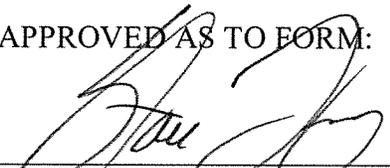
ATTEST:

  
\_\_\_\_\_  
Laura Wheat, Mayor

  
\_\_\_\_\_  
Kelly Edwards, Town Secretary

  
\_\_\_\_\_  
Thomas E. Brymer, Town Manager

APPROVED AS TO FORM:

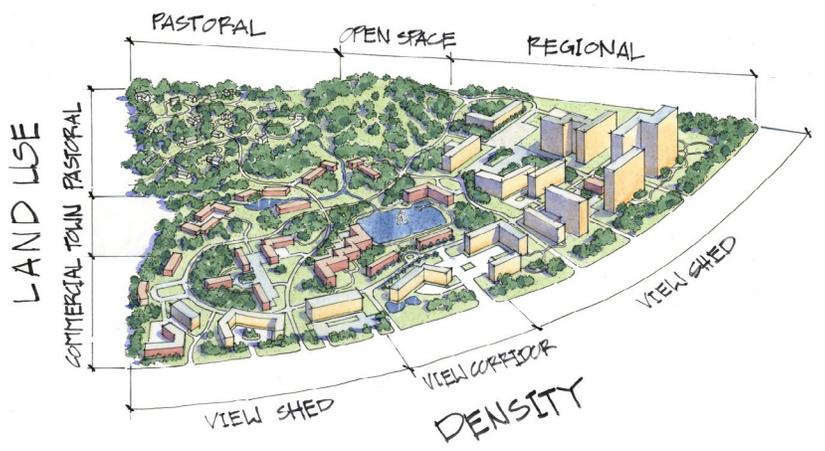
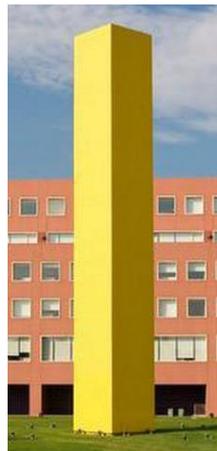
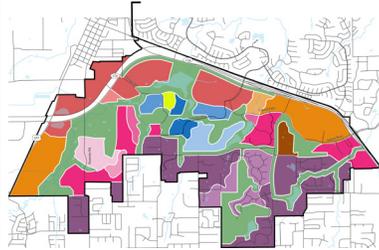
  
\_\_\_\_\_  
L. Stanton Lowry, Town Attorney



# COMPREHENSIVE PLAN UPDATE

## TOWN OF WESTLAKE, TEXAS

### ADOPTED MARCH 2, 2015



# Forging Westlake

MESA + PLANNING



GRESHAM  
SMITH AND  
PARTNERS



MOSAIC  
PLANNING &  
DEVELOPMENT  
SERVICES



# ACKNOWLEDGEMENTS

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Carol Langdon  
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G R E S H A M  
S M I T H   A N D  
P A R T N E R S

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Todd LaRue



MOSAIC  
Carissa Cox, AICP



**Citizens of Westlake** who participated in the Public Planning Workshops and those who attended the Steering Committee meetings, Joint Workshops, and Commission and Council hearings.

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# PART ONE: ASSESSMENTS

## AN ANALYSIS OF EXISTING CONDITIONS

### INTRODUCTION

The following **Part One** of this Westlake Comprehensive Plan Update is referred to as the Assessments. Assessments are the necessary foundation upon which the following are built:

- **An understanding of past, present, emerging, and inherent conditions that will shape and influence the future of Westlake.**

Westlake's agricultural beginnings, its proximity to neighboring growth centers, and its location relative to the outward expansion of both Dallas and Fort Worth have contributed to the present character, setting, and identity of the Town as well as its commitments to development entitlements. These historic dynamics will continue into the future at greater rates of change and thereby nurture further development/expansion/growth of the region and context surrounding Westlake. As surrounding change intensifies, internal change can become more pervasive and dramatic. Therefore, understanding the forces of change, the potential effects of change, and the time frame

of change is critical to creating a plan that can manage/respond to change.

- **Goals and Objectives that will guide formulation of the plan.**

Goals and Objectives, which guide the plan formulation, must be prescriptive, suggesting community preferences for outcomes that are necessary responses to the above described change. Therefore, the Assessments explain what needs to be considered when formulating these outcome preferences, allowing discussion of future conditions and their desired impact on the Town.

- **Formulation of Plan Elements.**

The purpose of this Comprehensive Plan Update is to recommend future land use, thoroughfares, infrastructure, housing, and other actions that are responsive to the dynamics of change as they present themselves while remaining consistent with the Goals and Objectives put forward by participants at the three Public Workshops. Therefore, the following Assessments are the starting point from which formulation of the above mentioned Plan Elements can be crafted.

The following Assessments are organized according to categories of growth impacts by which the Town will be influenced and to which the Town must be prepared to respond. These categories of growth impacts are:

- **Population and Demographics**, including the number of people within the future Town and its surrounding context by 2040.
- **Existing Conditions**, including the effects of physical patterns and entitlements established through history.
- **Development Suitability, Part One and Two**, considering the sensitivities of Westlake's landscape and the landscape influences that flow from current entitlements and development.
- **Transportation and Circulation**, including external traffic flowing to and through Westlake as well as the internal traffic flowing from Westlake.
- **Infrastructure**, considering the future water and sewer needs of Westlake at build-out.

Finally, the Assessments allow a clear view of what the planning challenges are for the Planning Team and give them input variables that can be factored into the calculus of solution recommendations.

# 1. POPULATION AND DEMOGRAPHIC ASSESSMENT

## **Introduction:**

The following text presents an assessment of population and demographic trends within the Town of Westlake and its more regional context. This assessment looks at five important dimensions of the population issue. The first issue is magnitude of growth, answering the question of how many people will likely be living in Westlake over the time frame of this 2040 Plan. The second issue concerns the potential conflict between that rate of growth and certain limitations to growth imposed by entitlement, infrastructure and land supply. The third issue derives from the pressures that a rapidly growing regional context places upon the Town of Westlake, whose population growth is ultimately limited by capacity issues. The fourth issue concerns the positive and negative impacts of present and emerging population tapestry characteristics (i.e., a consequence of certain demographic attributes). Finally, the fifth issue is the impacts of regional and local population growth on Westlake Academy.

The five issues described above reveal a broad view of population and its response to local conditions, as well as its effect on the Town. Through such understanding, the Comprehensive Plan Update is better informed. More specifically, the population related issues are:

## **Population Issue #1: Growth Rate and Population Projections.**

The first and perhaps most important population question to address is “what will the population of Westlake be by 2040”. The challenge to answering this question is the multiple growth-rate-affecting dynamics of change active within the Town and its regional context. Therefore, the Planning Team decided to chart a number of applicable growth rates and use as the “**Planning Growth Rate**”, a rate line that summarizes (correlates) the distribution of growth rates plotted. This “analogue” approach seems to best internalize the multiple growth rate influences present, emerging, and yet to come. The particular growth rates charted are as follows:

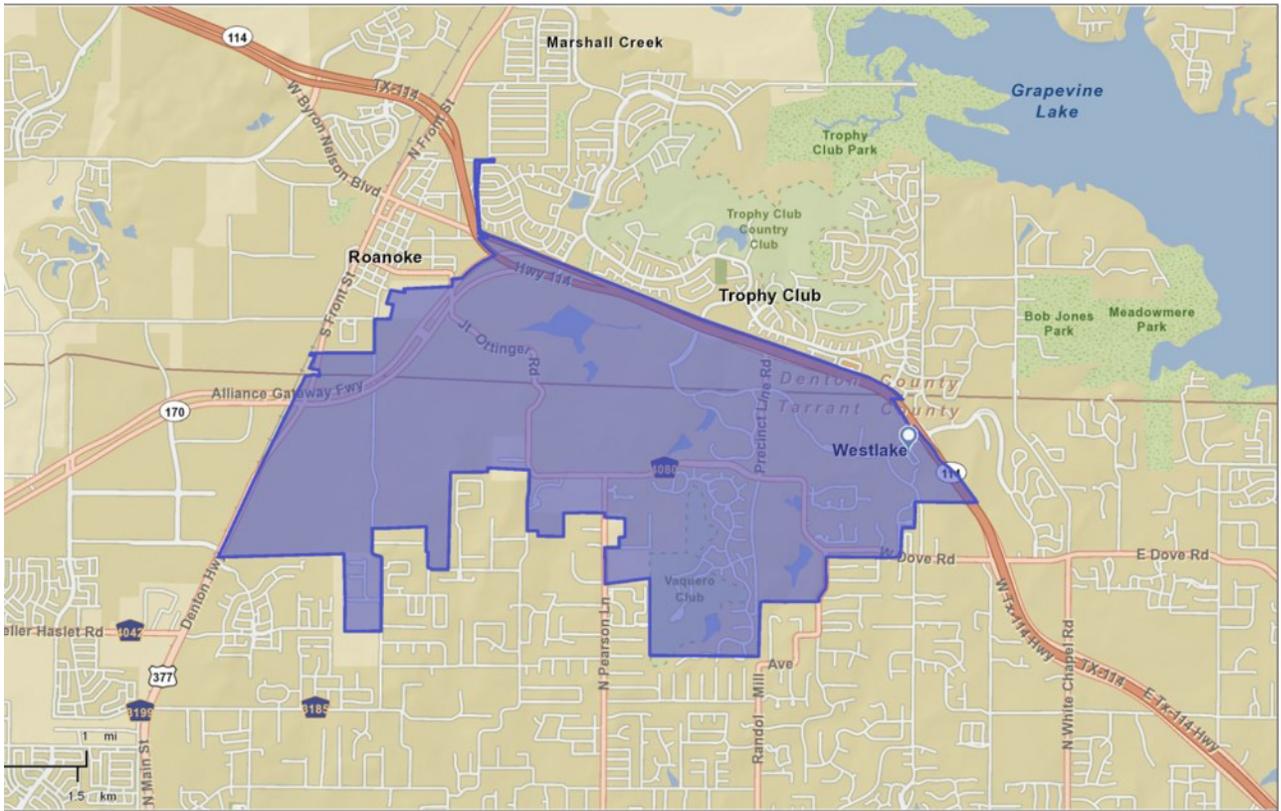


Figure 1: Historical Growth Rate Extrapolation

**Growth Rate #1: The Historical Growth Rate Extrapolation.** This growth rate calculation is simply an application of recent census growth rate (2000 to 2010) as a rate into the future. Figure 7 shows that the 2000-2010 growth rate of 5.62% (compounded yearly to 2040) will yield a 2040 population of 5,101.11 people. This is based on a 2000 population of 574 as reported by ESRI. However, SDS says that the 2000 population was 207, which yields an annual growth rate of 16.9% annually (higher than neighboring communities and would yield a 2040 population of 17,309, if applied). The annual growth rate for population growth from 2010 to 2013 (1,030 people) is a mere 1.26%, annually. This recent rate trend does not support extending such an aggressive 16.9% rate into the future. Therefore, the Planning Team will use the ESRI rate. While methodologically defensible, this simple application is crude in that it does not anticipate rate change

(positive or negative) in the future. There are many issues that could bend the rate curve upward, such as absorption of the land supply in neighboring communities or significant growth of employment in the Westlake area. However, it does function well as a reference rate and is, therefore, included in this analysis.

**Growth Rate #2: The Five City Growth Average.** It is extremely enlightening to view Westlake in comparison to its neighboring cities; namely, Southlake, Roanoke, Keller, and Trophy Club. The case can be made that Westlake will perform, in the future, similar to its immediate neighbors, unless there is some significant locational or other advantage Westlake holds or there is some extreme deficiency in the neighboring communities. Figure 2 illustrates the geographic range of the five city area. Therefore, the second plotted growth rate is an

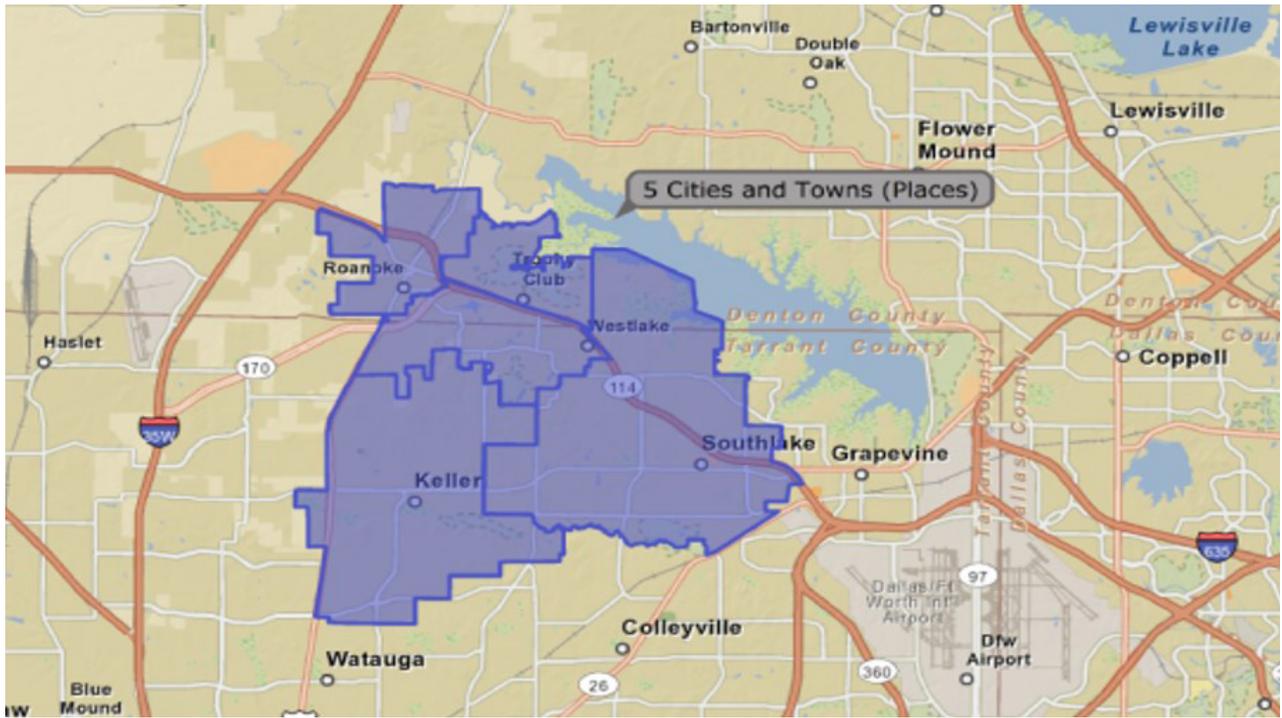


Figure 2: Five City Growth Rate

average of the growth rates for Westlake and its four municipal neighbors. This produces an average rate of 3.38%, when compounded annually to the year 2040 and will yield a population of 2,698.10 people. Note that this rate is considerably lower than the Westlake-only rate. This illustrates the trend of rates flattening as cities grow. Flattening of rate is something that Westlake will experience and that the historic rate is not responsive to. Therefore, an average of the Westlake historic rate and the five city rate will give greater weight to the effect of early growth; it will dominate Westlake's rate for some time while also recognizing the tendency of that rate to flatten over time (as neighboring cities are now experiencing).

**Growth Rate #3: The Near Regional Context Growth Rate.** Just as the case that Westlake will perform in a manner that is similar to its municipal neighbors can be made, it can also be said that Westlake's performance will reasonably approximate

the performance of what the Planning Team refers to as "The Westlake Region". Figure 3 shows the geographic reach of the Westlake Region. This area was chosen because it considers numerous rate-effecting growth dynamics at one time. These rate-effecting growth dynamics include:

- **The influence of 35W in combination with the general east to west advance of city growth, especially from Dallas markets:** The typical view of population growth rate in this area is to project the influence of an expanding Dallas market. Once it consumed Colleyville, it consumed Southlake; once Southlake established a critical mass, it moved into Keller. What is interesting to recognize is that while Colleyville was emerging and Southlake was yet to be the growth center it became, Trophy Club was already active as a destination residential environment. This illustrates the likelihood that beyond a certain distance from Dallas,

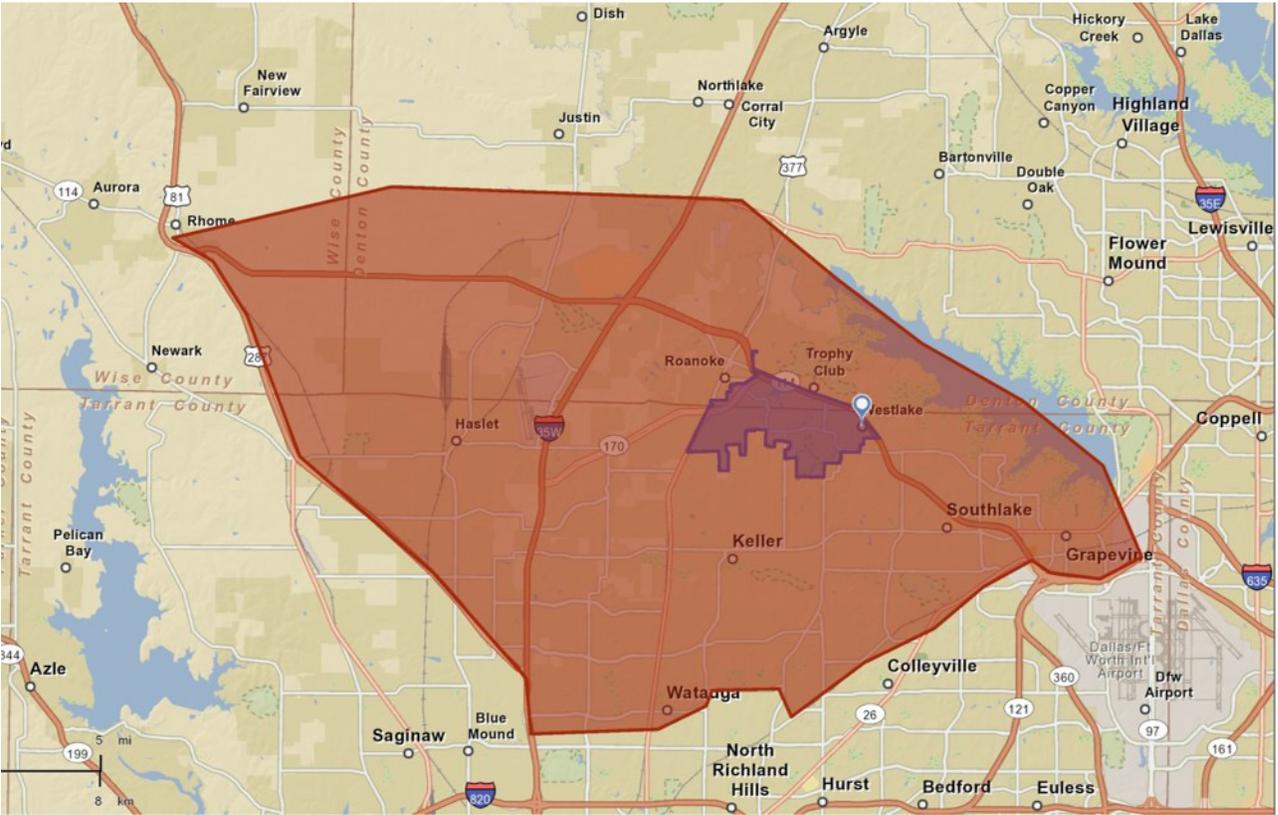


Figure 3: Near Regional Context Growth Rate

the Dallas market merges with the Tarrant County market; places like Roanoke, Westlake, and Trophy Club fall in that as yet unspecified market territory. The traditional Dallas market view does not factor in the influence of the Tarrant County market, which seems to cling to 35W. Therefore, a larger Westlake region that embraces the dynamics of both markets places the influence of 35W alongside the east to west advance of Dallas activity.

- Movement of growth from south to north:** While historic growth has moved from east to west along major corridors like 121 and 114 (this is the advance pattern of the expanding Dallas market), it is becoming clearer that growth from south to north (the advance pattern of the Tarrant County market) is playing an ever larger role in how this area will fill-out. Therefore, the Westlake regional view balances

the highly aggressive population rate numbers associated with east to west movement with the less aggressive numbers of south to north movement. In that Westlake's future lies within the combined effects of these markets, a broader view of growth rate is useful in making the "Planning Rate" a reflection beyond what the Dallas market is doing.

- The barrier effect of Lake Grapevine:** An important feature to population growth is the extent to which its geographic distribution is influenced by features in the landscape. When population growth moves north of SH 114, it quickly encounters the barrier imposed by Lake Grapevine. Therefore, while the Dallas market continues to reach out through Flower Mound, Highland Village, and now Hickory Creek, the influence of Lake Grapevine makes the Tarrant County market more

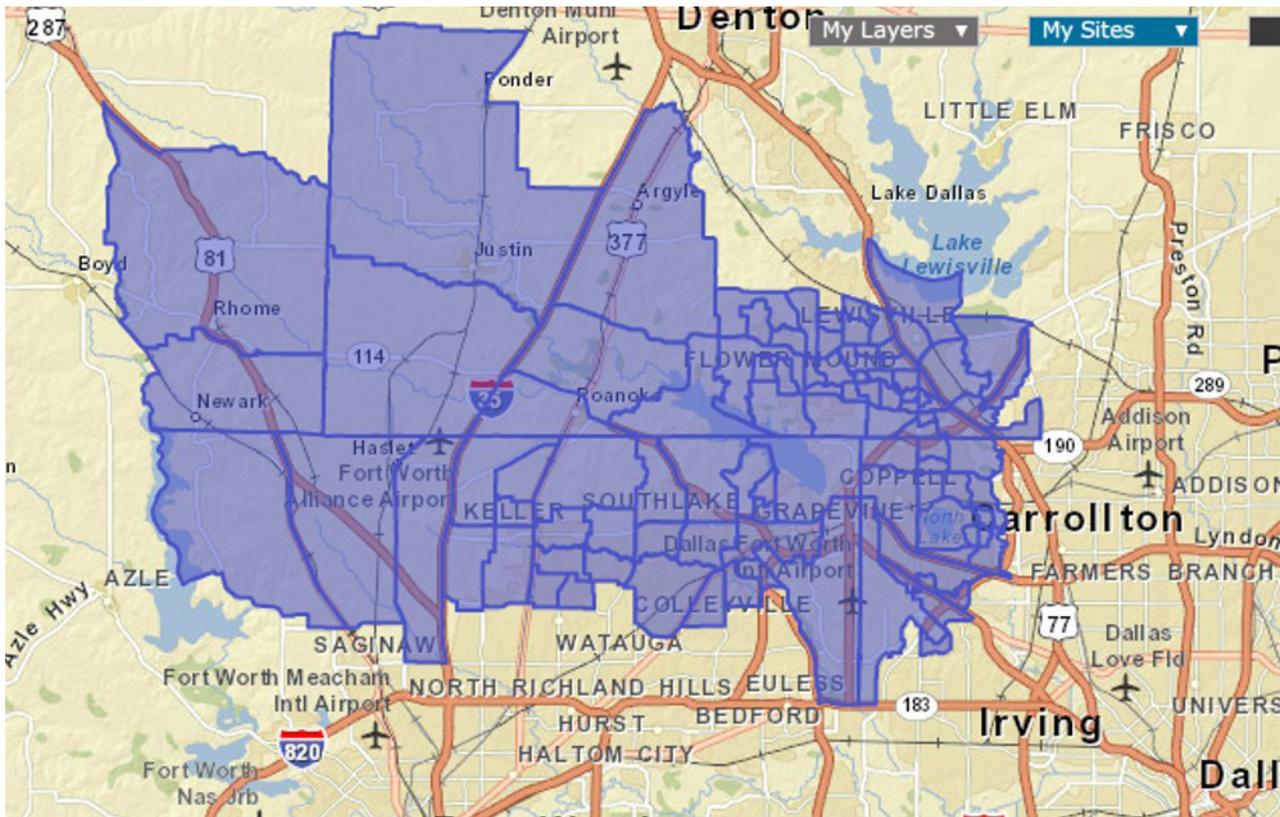


Figure 4: North Central Region Growth Rate

important to the future of Westlake.

For all these reasons, the Planning Team has plotted the Westlake regional growth rate of 6.59%. This rate, compounded annually to the year 2040, will yield a population of 5,927.25 people.

**Growth Rate #4: The North Central Region Growth Rate.** An important influence over the future growth rate of Westlake is the growth rate of the more general north central regions of Tarrant and Dallas Counties. Figure 4 shows the geographic reach of this area. The general area resides north of TX 183 and south of US 380. Also, it is limited in its east and west reach, stopping at Flower Mound/Lewisville on the east and Newark/Aurora on the west. Note that it avoids the urban cores of either Dallas or Fort Worth and circumscribes the north central growth area lying between the two

cities. This larger view has all the benefits that the Westlake regional view has but embraces more growth conditions that are relevant to the future. Therefore, the Planning Team has included it as a rate to be considered. Being one rate out of six considered, it allows mega-regional trends to be appropriately weighted in the analysis. Addition of this Irving rate as a rate to be factored into the overall correlation can be considered as a normalization of the analysis, thereby buffering the influence of individual eccentricities. The North Central Regional Growth Rate of 4.66% compounded annually to the year 2040 will yield a population of 3,615.37 people.

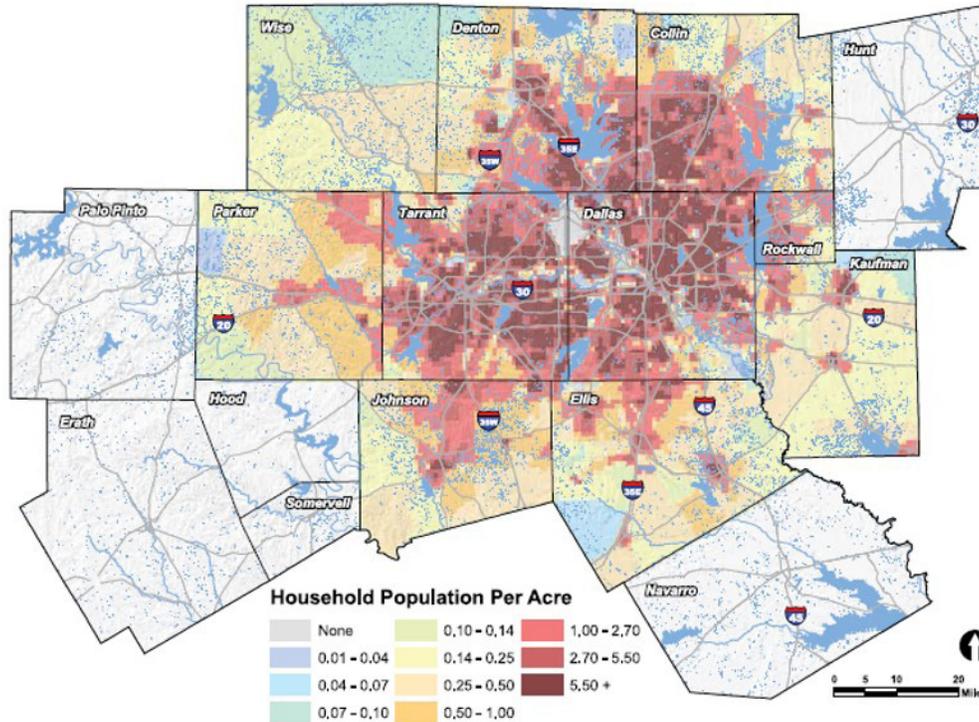


Figure 5a: Corridor Effect Growth Rate

**Growth Rate #5: The Corridor Effect Growth Rate.** As one looks around the Metroplex, it is apparent that cities and townships located adjacent to major corridors grew (and are growing) at a higher rate than cities and towns not so located. In that Westlake is a town located on the SH 114 corridor and that SH 114 is one of the more active corridors in the Metroplex, overall, it is reasonable to assume that Westlake will realize this “corridor effect” in its own growth rate. The anticipated power of the corridor influence is best expressed by the entitlements currently embodied in PD 1 through PD 4.

In order to arrive at a “corridor rate” for Westlake, the Planning Team considered the growth rate of 12 corridor communities. Some of these communities are high rate performers and others are not, thereby giving a balanced view of the “corridor effect” on growth rate. The communities chosen for this analysis are:

- **Rockwall:** This is an emerging growth performer just now entering its high velocity growth period. The 2000-2010 annual growth rate of Rockwall is **5.97%**.
- **Allen:** This is a mature corridor growth community. The 2000-2010 annual growth rate of Allen is **6.70%**.
- **Fairview:** Fairview has demographic attributes similar to Westlake and also similar attributes of form. The commercial center of Fairview (holding about as much commercial as Westlake retains in its PD's) lies along US 75 with the residential areas beyond, much like Westlake. The 2000-2010 annual growth rate of Fairview is **10.97%**.
- **Roanoke:** This community displays the particular effects of the SH 114 corridor and a major north/ south highway. The 2000-2010 annual growth rate of Roanoke is **6.02%**.
- **Forney:** Forney is a township along the I-20 corridor. The 2000-2010 annual growth rate of Forney is **10.41%**.

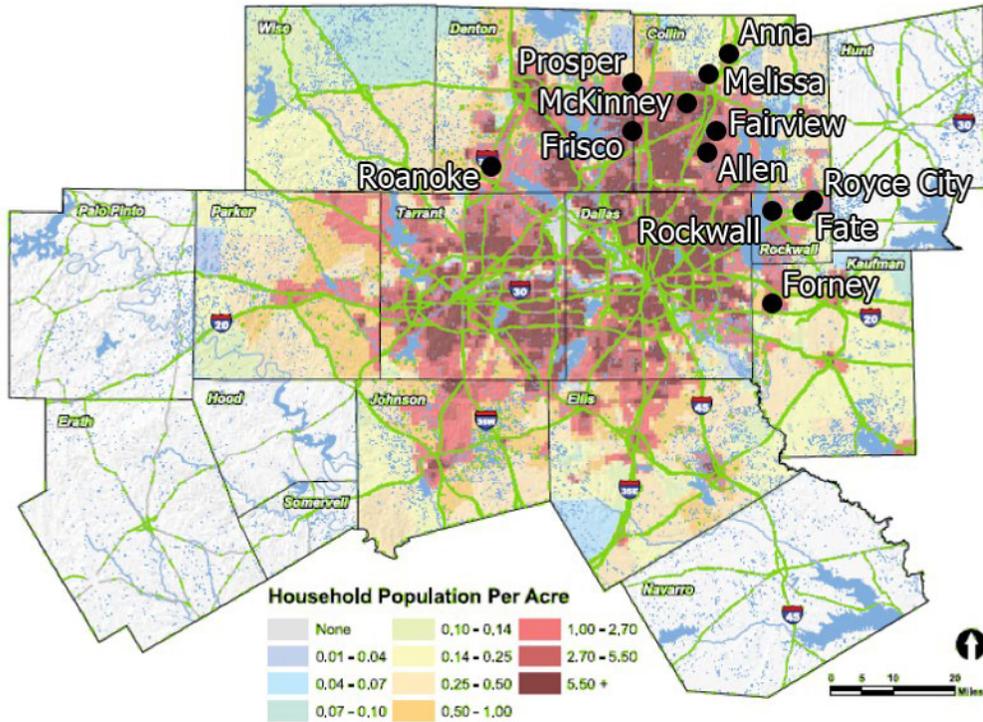


Figure 5b: Corridor Effect Growth Rate with Ref. Cities

- **Prosper:** Prosper is a corridor township immediately beyond another corridor city that is growing rapidly. The 2000-2010 annual growth rate of Prosper is **13.93%**.
- **McKinney:** Located in the US 75 corridor, McKinney is a mature growth center. The 2000-2010 annual growth rate for McKinney is **9.09%**.
- **Melissa:** Melissa is a township along the US 75 corridor that is on the fringe of growth. The 2000-2010 annual growth rate for Melissa is **8.66%**.
- **Frisco:** Frisco is a township along the Dallas North Tollway currently encountering the corridor growth effect. The 2000-2010 annual growth rate for Frisco is **13.21%**.
- **Fate:** Fate is a township along the I-30 corridor currently encountering corridor driven growth. The 2000-2010 annual growth rate for Fate is **12.23%**.
- **Anna:** Anna is a township along the US 75 corridor currently encountering growth. The 2000-2010 annual growth

rate for Anna is **13.67%**.

- **Royce City:** Royce City is a township along the I-30 corridor currently encountering growth. The 2000-2010 annual growth rate for Royce City is **9.81%**.

The average growth rate for these corridor cities and townships is **10.05%**. Therefore, the average rate compounded annually to the year 2040 will yield a population in-migration dynamic of 53,827 people in Westlake. While this number far exceeds the capacity of Westlake, it represents a velocity of growth and places Westlake at its point of capacity relatively early in the future. The justification for recognition of the corridor related growth rate impact is illustrated in Figures 5a and 5b (published by NCTCOG and part of the Vision North Texas growth analysis). Note that the highest population densities are illustrated in the vicinity of the US 377 and SH 114 intersection. Such densities are also shown for the corridor communities selected in Figure 5b.

NCTCOG 2030 POPULATION FORECAST								
	2000	2005	2010	2020	2030	TOTAL	% chg.	Yr. Rate
Roanoke	2,794	6,231	6,499	9,554	9,782	6,988	250.1%	4.27%
Trophy Club	6,351	7,530	8,645	9,895	10,057	3,706	58.35%	1.54%

Figure 6: NCTCOG 2030 Population Forecast Table

**Growth Rate #6: The NCTCOG Growth Rate.** It is important to compare the population growth potential projected by this analysis to what has been published by the North Central Texas Council of Governments (NCTCOG). In 2011, NCTCOG released population forecasts for 2035 and stated that Westlake would attain a population of 8,100. In earlier forecasts, NCTCOG projected a 2030 Trophy Club population of 10,057 people (1.57% annual growth rate), which is 24% (3,194 people) less than the historic growth rate (2.54%) projected potential. The 2030 NCTCOG projection for Roanoke is 9,782 (4.27% annual growth rate). This is half of what the historic growth rate (6.02%) projects as growth potential. The difference is best explained in Figure 6 above.

Note that population grows aggressively between 2000 and 2005 (Trophy Club = 17.4%) but flattens out between 2005 and 2010 (Trophy Club = 85%). Then, again, it grows between 2010 and 2020 (Trophy Club = 4.01%) but flattens out between 2020 and 2030 (Trophy Club = 24%). The Planning Team’s analogue approach will internalize the flattening dynamics and yield a more equally distributed result.

Each of the above described growth rates is plotted in Figure 7 and labeled 1 through 6. The large green line represents the correlated line, the “Planning Rate”, that is used throughout this planning process to establish the 2040 population potential. The term “population potential” is used in this case because capacity to hold

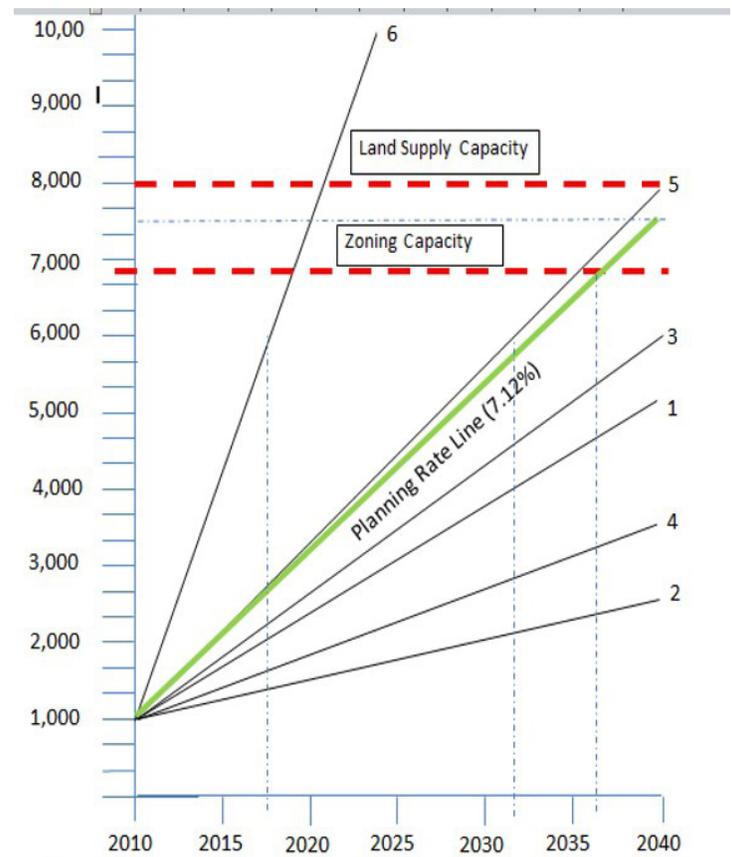
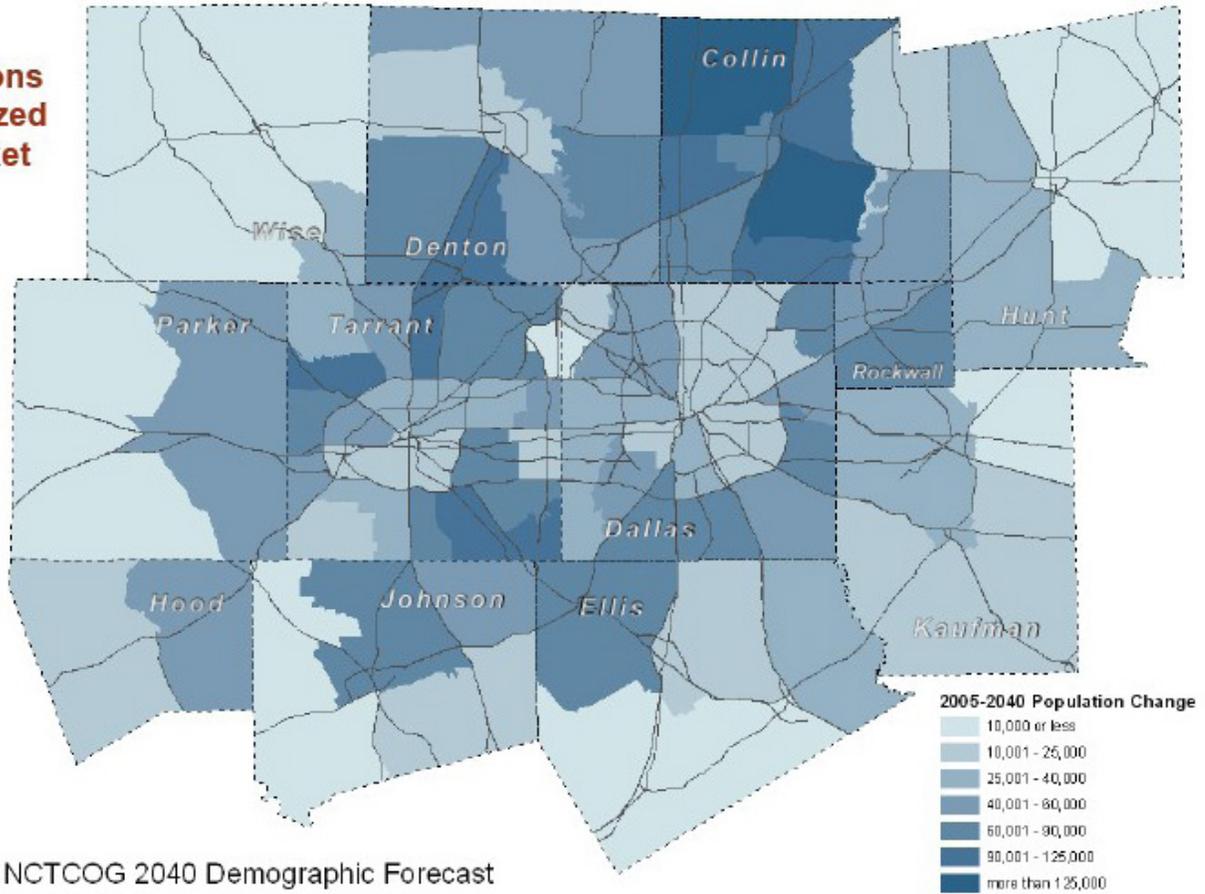


Figure 7: Growth Projection Chart

population growth is the real population issue for this Town. Discussion of the relationship between growth rate and holding capacity is presented in Population Issue #2 (page 12). It is the determination of the Planning Team that the Planning Growth Rate considers all the growth-rate-significant dynamics of the north central Metroplex, the Westlake region, the five city context, the corridor effect, NCTCOG projection, and the Town’s own history.

**Projections Summarized by Market**



NCTCOG 2040 Demographic Forecast



**North Central Texas Council of Governments**

Figure 8: NCTCOG Projected Pop. Growth

The Planning Rate of 7.12% is, therefore, the population projection basis for this planning effort and will yield a population of 7,500 people by 2040. This is only 600 people less than what was projected by NCTCOG.

Figure 8 illustrates the distribution of NCTCOG projected population growth by 2040. Note that the area of Westlake, Roanoke, and Trophy Club are among

those areas receiving a greater portion of overall population growth. Population growth in this area will increase more than 125,000 people. This supports the notion of attributing a greater rate potential for Westlake. Referred to as the Alliance North Fort Worth Area, it is one of the target growth centers identified by NCTCOG.

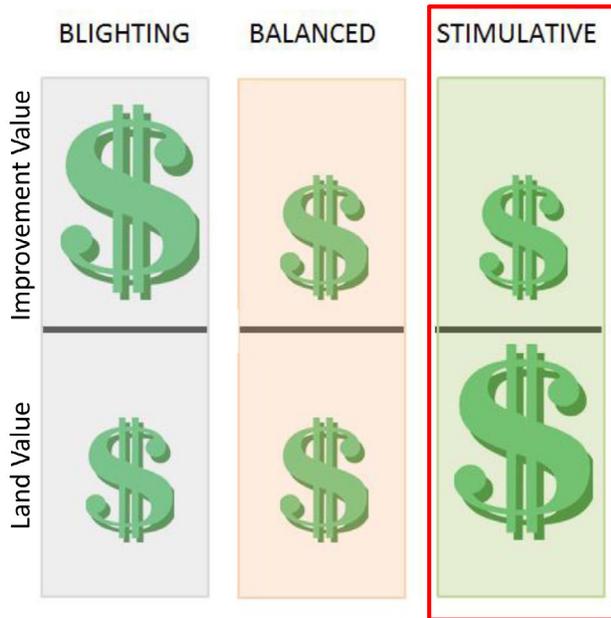


Figure 9a: Stimulative Effect

**Population Issue #2: The Conflict between Growth Rate and Build-Out Capacity**

Once the 2040 population projection has been determined, a special consideration particularly important to Westlake emerges: the point at which Westlake's population growth runs up against Westlake's capacity to hold population. This point of convergence between capacity and in-migration is significant to the Westlake Comprehensive Plan because of four factors:

**Inversion of Land to Improvement Value Relationships:** The conventional wisdom of the market place says the value of an improvement, or structure, generally responds to the value of the land upon which it sits. Therefore, one will not find a speculative office building in a corn field but rather in an urbanized area where the value of land reflects the market potential of the location (i.e., proximity relationship). This is best illustrated by Figure 9a. In this figure, the numerator is the improvement value and the denominator is the land value. In the left most set of dollar signs, the numerator (improvement) is greater

than the denominator (land value). This is the situation seen in much of South Dallas where dwindling land values has led to deferred maintenance and absentee ownership. This relationship is labeled as "blighting" because the pressures of improved value (reflective of market desirability) are not present. The right most set of dollar signs (Stimulative) reflects what could happen in Westlake when growth approaches the capacity limits: in-migration (demand) is limited by capacity (supply) and there is a pressure for the denominator (land value) to rise. At some point, it exceeds a normative relationship to improvement value and triggers interests in redevelopment. This is just what has been happening in Preston Hollow for the past 10 years: rising land values have triggered the redevelopment of lots with much larger, more expensive homes. When a stimulative situation exists, a town or place is in "transition" whether physical development is occurring or not and is, therefore, basically unstable. The middle set of dollar signs (balanced) is actually a theoretical condition as the dynamics of an economy move through balance between the right and left extremes. To remain in balance is a condition of "stasis", something that a vibrant economy cannot sustain without becoming dormant.

While movement through a point of balance is unavoidable, the extremes of its swing is what the Plan should endeavor to limit, as seen in Figure 9b. When the denominator expands too aggressively, it becomes unstable, a "bubble", in market terms. Driven by speculation, this became the international condition pre 2008. Banks observing the instability of a rapidly increasing denominator and its burden of greater risk sought to diminish the denominator by transferring a portion of that risk through derivatives. After 2008, when the denominator began to aggressively shrink and government

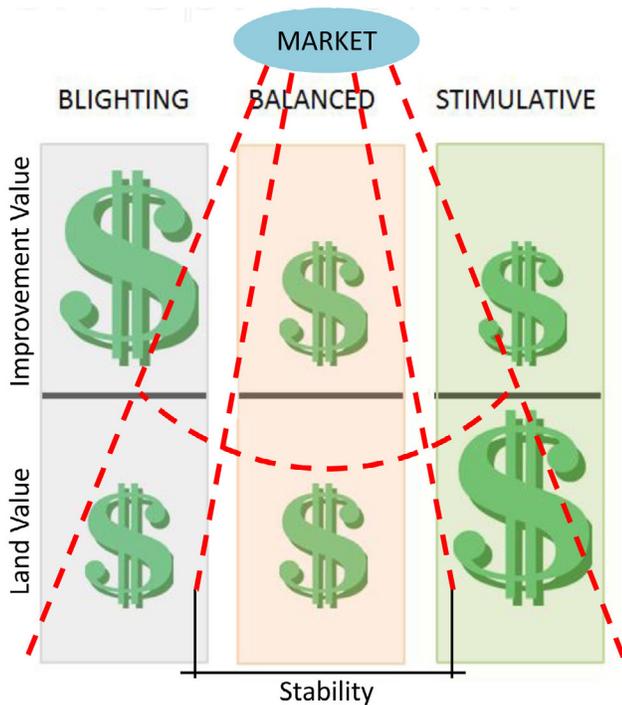


Figure 9b: Stability Effect

saw the growing risk of financial failure, government sought to stabilize the effects of such shrinkage with TARP. For Westlake, approaching the capacity line with population growth in a market where that growth demand well surpasses capacity causes the forces of speculation to become activated and a stimulative condition emerges. This condition has the potential to become a bubble, only worsening the instability of a stimulative environment. The ultimate expression of speculation and a stimulative condition is redevelopment.

**Redevelopment/Infill-Development Management over Growth Management:**

Redevelopment/Infill-development is a much different issue than growth management of yet undeveloped land. For the foreseeable future the issues of growth also engage reconciliation of the existing entitlements in such a way that a coherent township emerges. However, depending on which growth rate is ultimately applicable, Westlake could find itself approaching capacity in a very

few years and, thereby, confronted with issues related to redevelopment and infill-development. These issues include:

- **Participation of local government:** Typically, the complexities of redevelopment/infill-development require greater participation of local government. Such involvement ranges from various public/private partnerships to revision of standards that apply to the preceding condition. The many issues surrounding development within an existing built fabric call for greater oversight, regulation, and, where desirable outcomes need to be incentivized, participation.
- **Adjacency and design more than land use:** Redevelopment is development that replaces and/or reuses existing development, while infill-development is development on remnant land parcels within the existing built fabric. Each of these undertakings brings new construction of typically higher use, thereby responding to appreciation of underlying value in close proximity to lesser use. Therefore, design and transition become significant to a successful coexistence. One early sign of infill-development and increasing land value is a tendency toward smaller lots. Smaller lot developments can be a benefit to Westlake providing potentially needed housing options, but the design and price point of the development is critical. The Caruth Home Place, located east of US 75 and fronting the north edge of Southwestern Boulevard (northern edge of University Park), is an infill development that complimented the existing community and affirmed its value. Design has great impact on how a city manages growth.
- **Managing transition over managing growth:** As stated above, managing transition involves greater management of design and calls

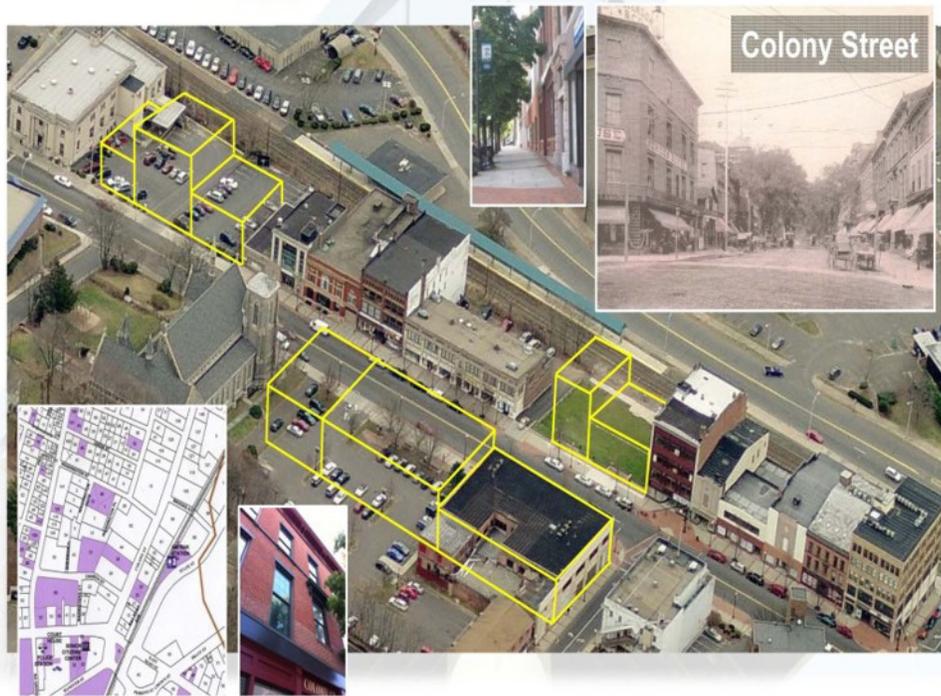


Figure 10: Redevelopment/ Infill-Development

upon the regulators to be equipped to undertake such a task. The primary issue of redevelopment and infill-development is its potential to trigger wholesale change, which then impacts the marketability of existing land use. Therefore, the challenge is to manage change in a way that preserves stability. Management of growth has much to do with land use and implementation of standards that are related to the project, internally. However, management of redevelopment and infill-development involves implementation of standards that are related to the projects external effects. It also requires greater creativity in addressing issues of adjacency because, while the greenfield has abundant space to establish large setbacks, etc., the redevelopment/infill-development project has less space to work with and must achieve the same results through creative use of the edge envelopes.

- The need for redevelopment/infill-development management tools and a redevelopment plan:** The greater importance of design means that the Town will ultimately need design tools to facilitate its oversight work. In addition, it will need new ordinance vehicles to codify these design standards. Most important, the Town will shift from simple land use to creation of a redevelopment plan. This plan will identify areas where redevelopment is appropriate and where infill-development is likely to happen. By such designation, standards are then applicable to redevelopment/infill-development activity.

**Greater accountability for decision process:** In a condition where the land supply is limited, demand is strong, and land values are rising, the cost of failure in the entitlement process becomes significantly greater. Also, the cost burden of going through the entitlement process

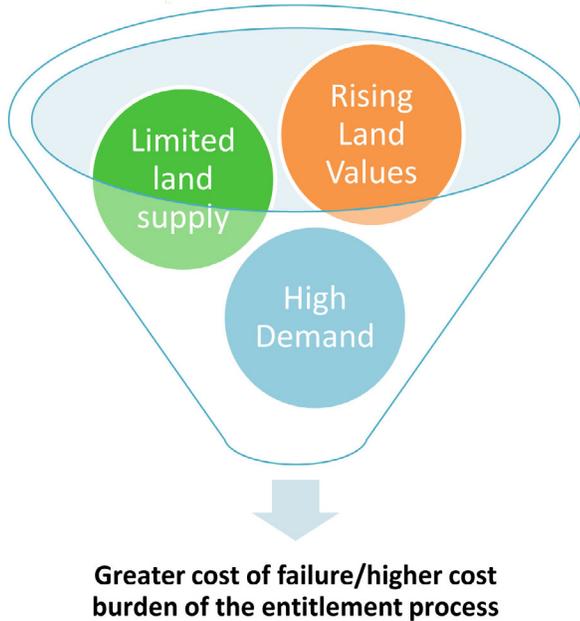


Figure 11: Accountability

is greater. Therefore, attention on the process, itself, becomes acute. In Dallas, most zoning matters are handled by attorneys representing the applicant, instead of the owner/developer. This has led to significant change in how zoning matters are handled within Town Hall and has prompted the creation of more expeditious processes, more binary standards, and more in-depth application review. As Westlake approaches its holding capacity, such changes to existing processes will be required for all the reasons mentioned above.

**Service demands of use versus service demands of resident population:** Most of the above observations relate to absorption of the residential land. However, as the economy improves and the rapid growth projected for the Westlake region reaches a critical mass, the Circle 'T' commercial property is very likely to develop. When one considers the other optional retail locations, it is clear



Figure 12: Service Demands

that the Circle 'T' location is prime. Figure 12 shows the five critical intersections west of Solana Boulevard. Intersections labeled with an "A" are the ones that serve Circle 'T' and are equipped with cross over structures, entitlement, and land supply. Intersections labeled "B" and "C" are spatially constrained. While they will have some amount of retail in the future, it will be more limited in terms of total square footage. Intersection "D" is consumed with periodic traffic issues related to the speedway, and land in that location is slated for hotel development over retail. Finally, intersection "E", owned by the Perot Company, will, except for the Cabelas and other present retail, likely be retained to support the primary industrial purpose of Alliance. For this reason, Perot Company has taken one of its four intersection sites as a truck stop. In light of this quick assessment, it is likely that the Circle "T" property will develop significant commercial square footage to serve the emerging market and, as a result, import a

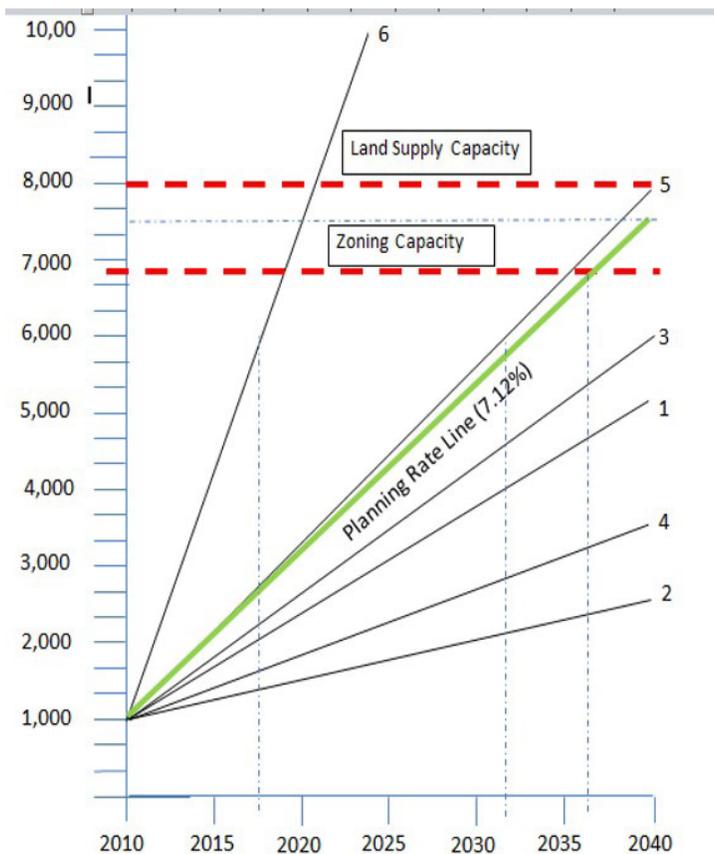


Figure 13: Growth Projection Chart

great deal of vehicular traffic and daytime populations to Westlake. The service needs of this day-time population become a potential cost burden to a residential ad valorem base, which is limited by land area that is relatively small compared to the amount of non-residential land area.

Figure 13 identifies two capacity limits that can set a ceiling on residential in-migration. These capacity limits are:

- Capacity set by existing entitlement (Zoning Supply):** Considering the zoning in place and the entitlements conveyed by the Town's four Planned Development Ordinances, the residential capacity of Westlake is 2,253 households and 6,927 people at 3.28 (SF) and 1.9 (MF) persons per household. The next section, Existing Conditions, has taken that information and converted it to residential units and development

square footage. Through this process, a total number of units is identified.

- Capacity set by land area (Land Supply):** Assuming that existing zoning could be adjusted over time, the land area of Westlake becomes its ultimate capacity determinant. Assuming that retail entitlements remain and that office entitlements on interior properties may be converted to residential use, the land supply holding capacity at 3.28 units per acre would be 2,046 households or 7,747 people.

Note that by applying the Planning Growth Rate of 7.21%, Westlake hits its capacity line of 6,927 people by 2036. However, giving greater weight to the "corridor effect" (as discussed in the previous section) could place Westlake at the threshold of its capacity much earlier (at an 8% growth rate, capacity of 6,927 would be encountered by 2035). Therefore, attaining capacity is a planning issue flowing from population growth projections.

### Population Issue #3: Internal Pressures of Regional Growth.

When considering the future population projection of Westlake, it is important to consider it in relationship to the population of surrounding communities. This is important because Westlake resides in a very dynamic growth context that will impact the Town physically as a result of the increased service demand, traffic, value fluctuations, and daytime populations such growth drives. There are four population settings that merit consideration. These are:

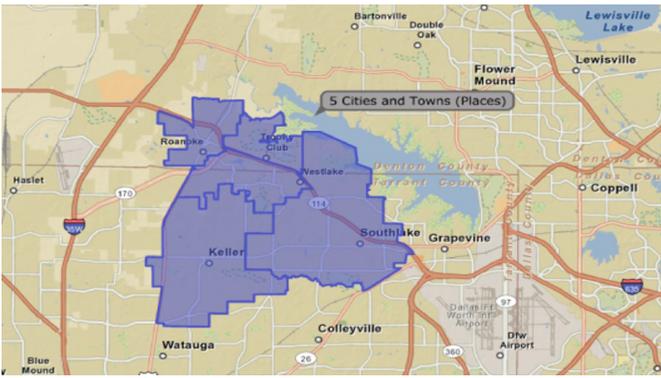


Figure 14: Internal Pressures, Four Surrounding Cities

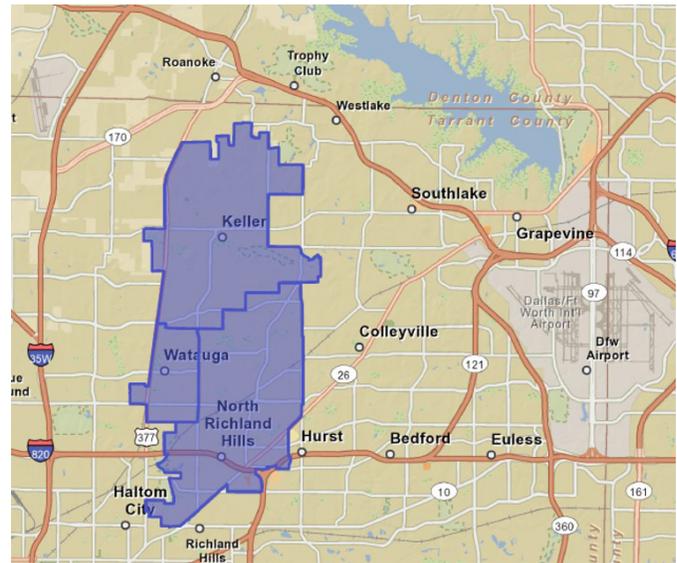


Figure 16: Internal Pressures, Regions Accessing 114

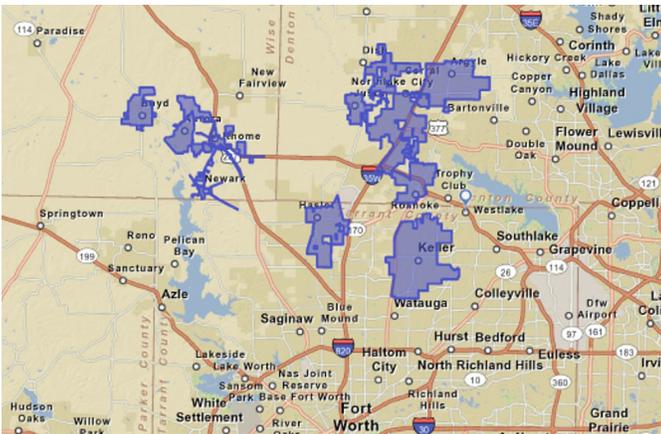


Figure 15: Internal Pressures, Westlake Upstream Region

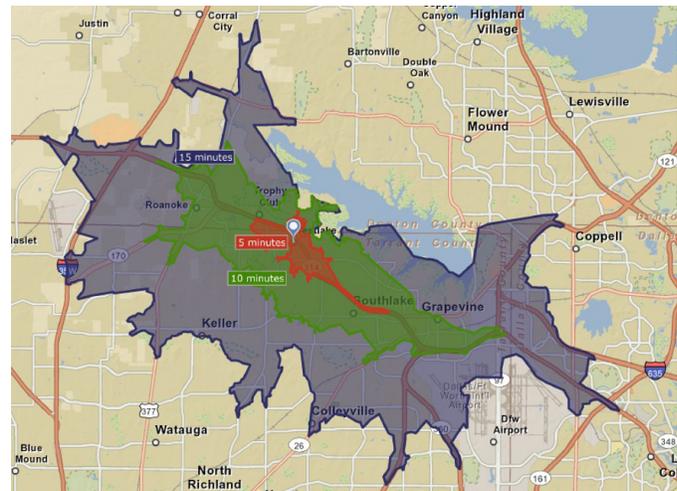


Figure 17: Internal Pressures, 15 Min. Retail and Commuter Drive Zone

- **The Four Surrounding Cities:** This setting considers the population touching the edges of Westlake and includes Southlake, Trophy Club, Roanoke, and Keller, as seen in Figure 14.
- **The Westlake Upstream Region:** This setting considers the cities and townships that are west of Westlake served by SH 114. These are growth areas that will eventually define Westlake's retail and commercial hinterland. This area includes Roanoke, Haslet, Newark, Corral City, Argyle, Rhome, Justin, Keller, Ponder, and Northlake, as seen in Figure 15.
- **Regions Accessing SH 114:** This setting considers the communities south

of Westlake that must flow through Westlake to SH 114 and retail fronting SH 114. This area includes Keller, Watauga, and North Richland Hills, as seen in Figure 16.

- **15 minute Retail and Commuter Drive Zone:** This setting considers growth areas that lie within areas that are within a 15-minute drive to the center of Westlake. The center of Westlake is set at Westlake Town Hall. This zone extends more to the east and west than to the north and south because of the driving time advantage afforded by SH 114, as seen in Figure 17.

### Leakage/Surplus Factor by Industry Subsector

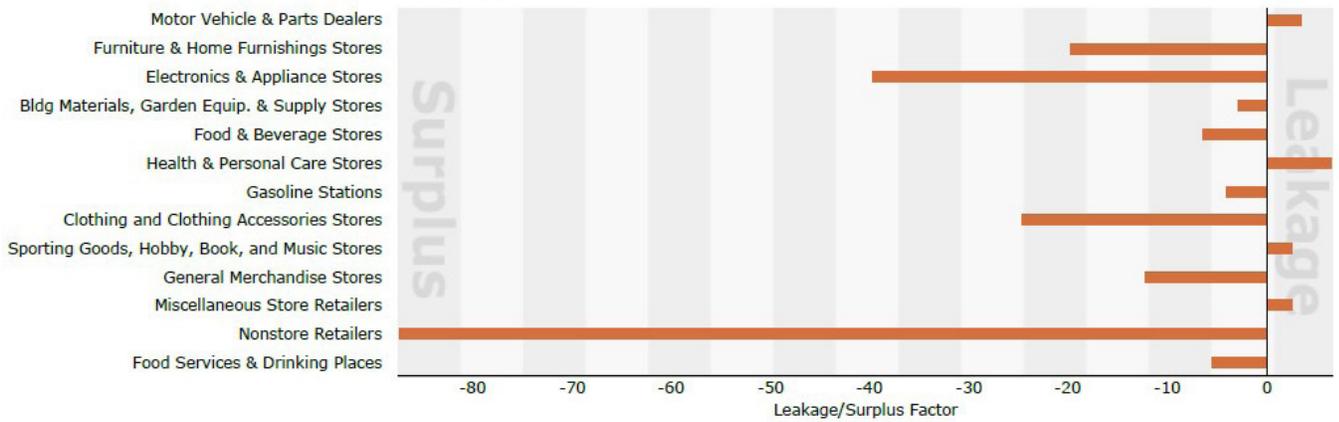


Figure 18: Leakage Chart

Figure 18 illustrates that there is rapid and expansive growth in each of the above population settings, meaning that Westlake, with its projected small population of nearly 7,000 people, is the focal point of a considerable population center. More specifically:

- The Four Surrounding Cities:** The four cities surrounding Westlake will hold a combined population of 215,801 people by 2040. This population physically surrounds the commercial center defined by combined Planned Development District entitlements in Westlake, which collectively convey rights to more than 18 million square feet of non-residential development, including hotels. Westlake is the commercial center of an urban/economic organ containing approximately 220,000 people when considering the mechanical integration of this area through shared roads, infrastructure, and economic transaction rather than political boundaries of individual cities. Compare this to other single jurisdiction cities with a similar population. Such cities in Texas include Laredo (244,731), Lubbock (236,065), Garland (233,564), and Irving (225,427). Because of the commercial aggregation within, and structural integration of, this five city

area, including Westlake, faces truly urban issues as it matures. Commercial aggregation and structural integration means that adjacent population will:

- Use Town roads
- Use Town parks and open spaces
- Place potential demand on emergency services
- Require capital project investment to service needs

If Westlake chooses to remain “small” in terms of the appearance of its roads and openness of its landscape, it will face the same challenges that Highland Park faces as Dallas grows around it. Maintaining a small scale road capacity and/or limiting the road system to a few main roads will cause dramatic level of service increase at the few outlet points serving the Town (see Circulation Analysis). Part of the “smallness” that residents currently enjoy is a fluidity of service at intersections. Presently intersection service levels are “C” or better.

- The Westlake Upstream Region:** The largely undeveloped upstream region can grow rapidly over the next 27 years and attain a potential population of 220,826 people. Except for Keller and Roanoke, many of the cities

comprising this setting are outside the “Four Cities” setting (described above) and, thereby, raise the total population impinging Westlake to right at 300,000 people. This is a significant tributary population and further adds to the burdens that the small residential population (but dense commercial aggregation) the Town of Westlake will bear.

- **Regions Accessing SH 114:** The largely developed cities and townships south of Westlake along primary arterials running through Westlake, such as Precinct Line Road, will potentially attain a population of 219,184 people. These cities and townships will use the roads running through Westlake to access SH 114 and the many retail/employment destinations along the way. Most of these people will live in Keller, but the two cities further south than Keller and using Westlake arterials to access the SH 114 corridor will add another 94,000 people to the 300,000 mentioned above bringing the total population that uses and flows through Westlake to nearly 400,000 people.
- **15 minute Retail and Commuter Drive Zone:** Of all the population settings discussed in this analysis, the 15 minute drive-time window is perhaps the most significant. The national average commuting time is 23 minutes. Therefore, commute times within this 23 minute range would lead potential employees and corporate officers to live somewhere in the 15 minute drive-time area if their work place were located in Westlake and can be viewed as population absorbing commercial space in Westlake. In addition, people living within this drive-time window will be the primary shoppers patronizing retail establishments in Westlake. There will

potentially be 296,000 people living in this area by 2040. The potential population tapestry segments that describe this population (discussed in the following section) suggest that the median household income will be nearly \$100,000.00, making this emerging population concentration (presently underserved by retail in the general window area) a determinant for locating retail uses in Westlake. Therefore, the 296,000 people living within the 15 minute drive-time window will substantially supply the workforce and shopping population that will also be in Westlake for significant time periods each day.

Assuming that the 2040 population will look a lot like the 2013 population in terms of age distribution, 48% of these 296,000 people (142,000 people) will be between the age of 20 and 60 years old and, therefore, possible participants in the workforce. Because the population resides within a commute distance that is clearly less than the national average and because the population tapestry segment analysis below suggest that 91% of this population is employed in management, professional, sales, and white collar jobs, they are likely candidates to work in Westlake’s office centers. If we assume that 40% of the 142,000 could work in offices located in Westlake, the Westlake workforce contribution flowing from the 15 minute drive-time window is 56,000 people. At 300 square feet per person, this workforce could absorb all the office entitlement now granted by the Planned Development Ordinances of Westlake (13,314,980 square feet). The actual employment capacity of the commercial entitlements is 37,000 people.

The 15 minute drive-time window population will potentially meet this threshold by 2032 (when populations are compounded annually at historic U.S. census growth rates).

From a retail perspective, the 15 minute drive-time window experienced \$4.4 billion in retail sales in 2012, while the retail sales potential of the area's population (145,960 in 2012) represents \$2.3 billion dollars. This means that there was significant importation of retail sales during 2012. Using the retail potential of \$2.3 billion and a population growth potential by 2040 of 295,521 people, the possible 2040 retail potential could be \$4.6 billion. That is a growth of \$2.3 billion over the next 27 years; such sales volume could support approximately 9.2 million square feet of retail space. The 3.1 million square feet of retail space granted via the Planned Development Ordinances of Westlake represents a safe 33% of that growth market. This means that the drive-time population growth could easily absorb the retail square footage established by its Planned Development Ordinances.

Figure 18 illustrates the sales surplus (imported sales) and leakage within the 15 minute drive-time window.

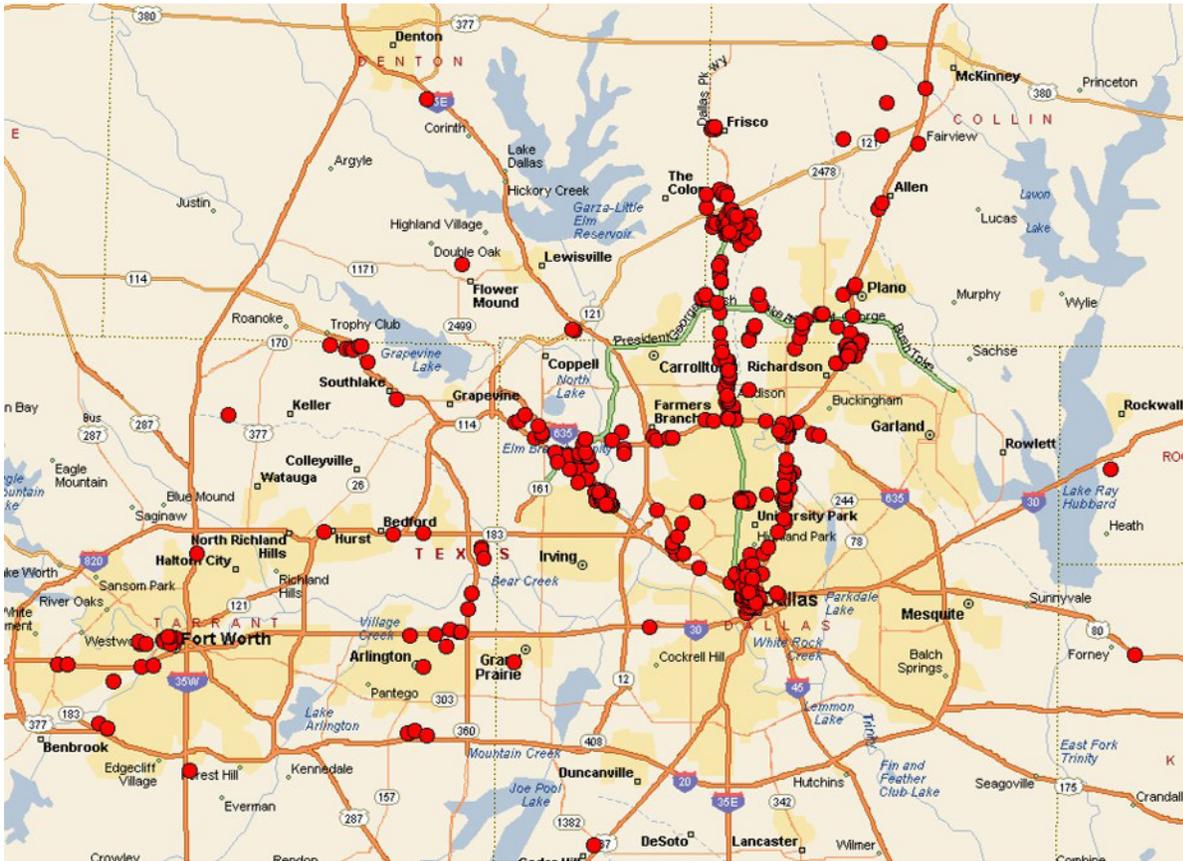


Figure 19: Dallas MSA Class A Office Buildings

### Dallas MSA Class A Office Buildings

Recent growth in Class A office space has largely followed major transportation corridors leading to executive households. In particular, areas north of Loop 635 along the Dallas North Tollway, shown in Figure 19, have seen significant growth in Class A office space as executive housing has emerged in cities such as Plano, Frisco, Prosper, and The Colony. To the northwest of Dallas, Las Colinas has emerged as a major employment hub, providing accessibility to executive households via SH 114.

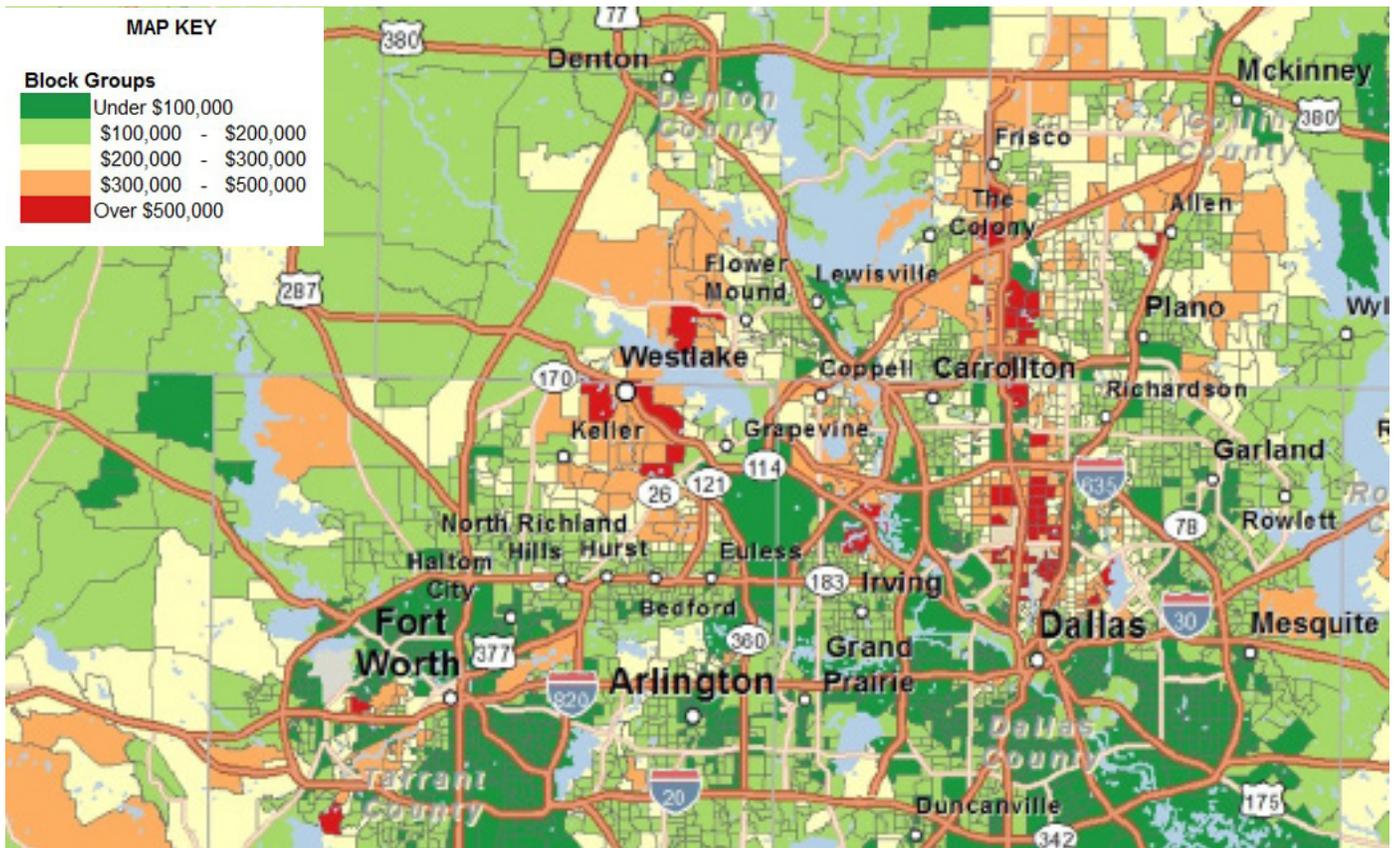


Figure 20: Metroplex Executive Housing Corridors

### **Metroplex Executive Housing Corridors**

Figure 20 illustrates where executive housing corridors have emerged outside of Loop 635 as affluent households continue to prefer areas with strong schools and access to employment. The area north of Loop 635 along the Dallas North Tollway represents the most robust growth corridor, garnering a large share of executive household growth over the last three decades. The Westlake area represents another executive housing concentration; the area's strong schools and access to employment located along SH 114 will continue to draw affluent households to the area. Likewise, additional employers will likely be drawn to the area as the concentration of executive households continues to grow.

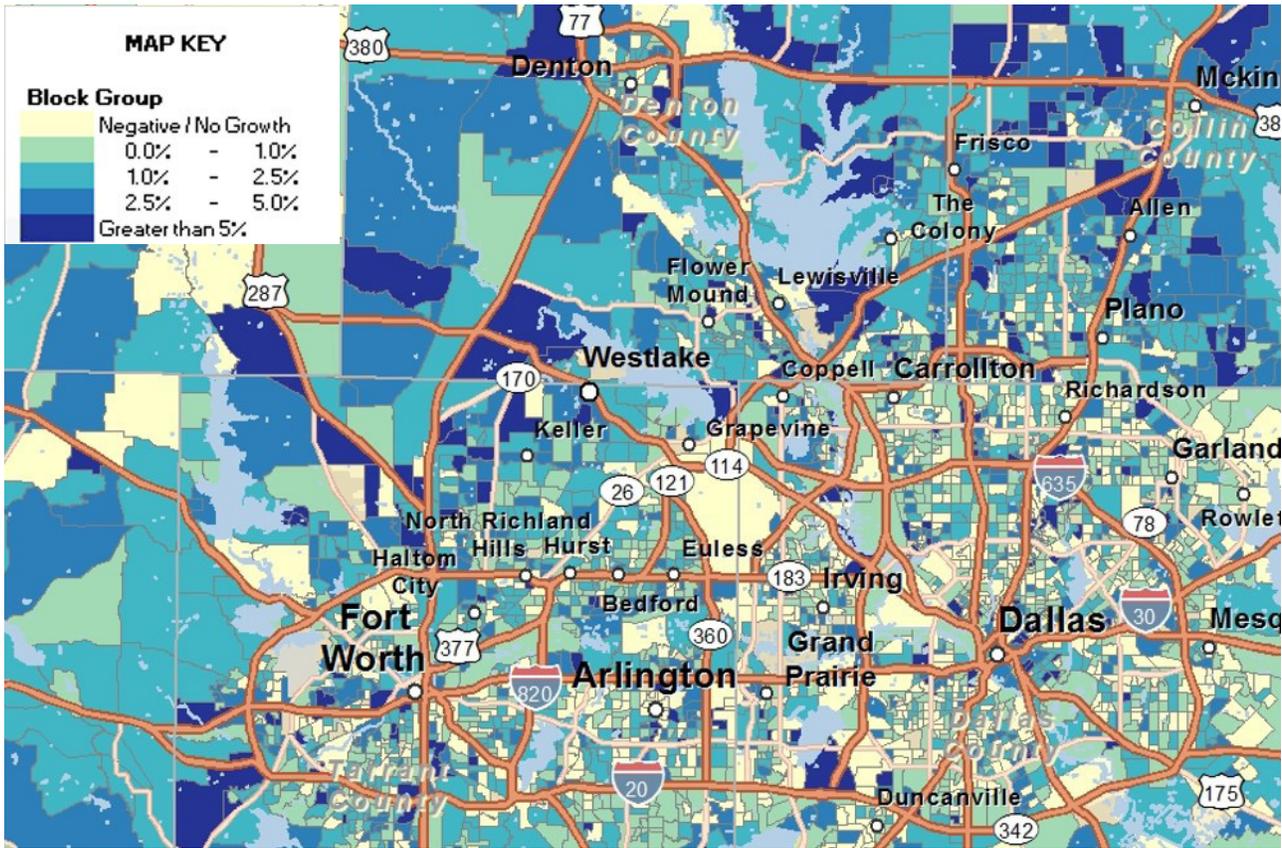


Figure 21: Metroplex Household Growth

### Metroplex Household Growth

Suburban areas have exhibited the strongest growth rates over the last three years. Areas like the SH 114 Corridor, with ample development opportunities, well-performing schools, and strong access to employment, are likely to continue garnering much of the household growth in the Metroplex. Areas to the west, such as Roanoke, and areas to the north, such as Flower Mound, have also experienced significant growth in recent years. Refer to Figure 21.

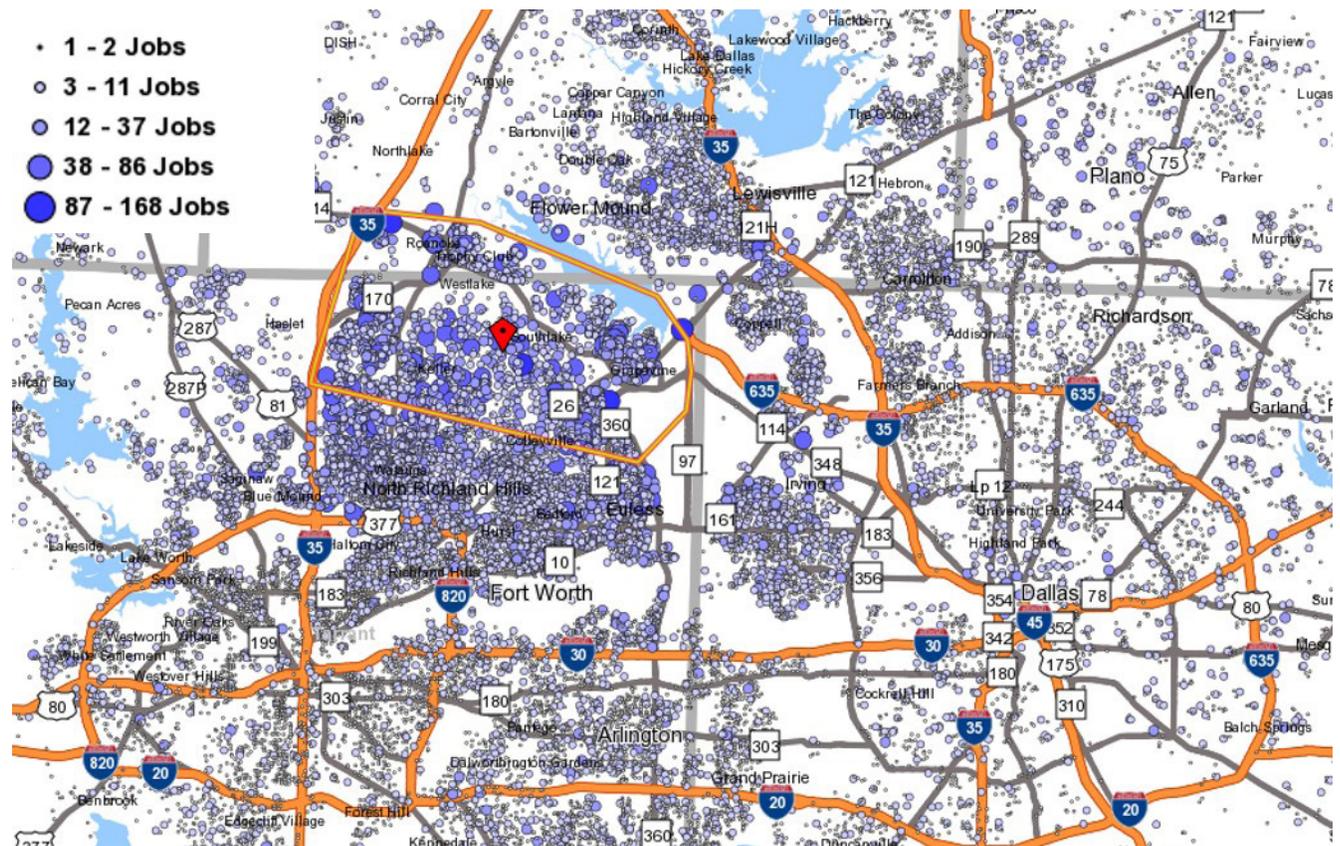


Figure 22: Westlake Area Employees' Commuting Patterns

### Westlake Area Employees' Commuting Patterns

Based on 2011 Census data, employees who work in the Westlake area mostly live in areas north and northeast of Fort Worth. About 20% of commuters live in the Towns of Euless, Southlake, North Richland Hills, Grapevine, Keller, and Irving, with 17% of commuters living in the City of Fort Worth. Overall, about 17% of commuters live in the City of Fort Worth. With ample development capacity in the Fort Worth area, along with areas north of Westlake that are largely undeveloped, office development in Westlake is likely to continue. Refer to Figure 22.

### Employment by Industry

Figure 23 shows that 60% of Primary Market Area employment is concentrated in three industries. The first is Trade, Transportation, & Utilities, accounting for 25% of area employment, compared to 21% for the Metroplex. This higher proportion is likely due to the presence of Alliance Texas. The second industry is Professional Services, accounting for 21% of total employment, compared to just 19% for the Metroplex. The third industry is Financial Activities, accounting for 12% of total employment, compared to just 8% for the Metroplex. Continued growth in these industries will support new office development in and around the Westlake area.

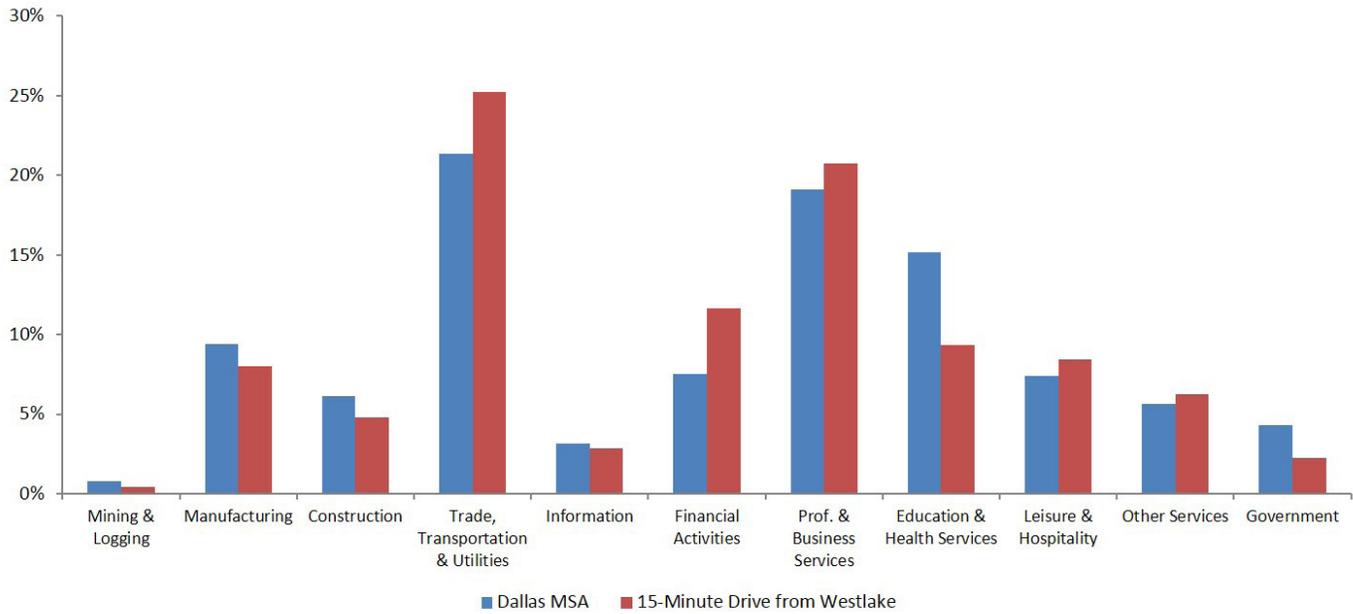


Figure 23: Employment by Industry

JOB CENTER	OFFICE SPACE IN JOB CENTER (SF)	HOUSEHOLDS WITHIN 20-MINUTE DRIVE	OFFICE SPACE WITHIN 20-MINUTE DRIVE	OFFICE SPACE PER HH WITHIN 20-MINUTE DRIVE (SF)
Legacy Business Park	14,061,579	248,057	64,558,330	260
Las Colinas	19,785,061	108,318	52,073,148	481
Westlake Area	2,546,644	55,441	8,750,865	158

Figure 24: Comparison Chart

### Job Center Statistics

Large suburban job centers have emerged outside of Loop 635 with the Legacy Business Park and Las Colinas representing two of the largest suburban job centers in the Metroplex. Similar to Westlake, the Legacy Business Park is located 30 miles outside of Downtown Dallas. If Westlake begins to resemble the Legacy Business Park’s 260 square feet of office space per household within a 20-minute drive, this would imply growth of almost six million square feet of office space. Further executive household growth along the SH 114 Corridor and areas north of Westlake will lend further support to additional commercial land uses, bringing an increasing amount of

commuters and visitors to Westlake. With the area within a 20-minute drive from Westlake projected to have as many households as the area around Legacy Business Park, a massive commercial concentration is likely supportable given the area’s transportation access and visibility. Refer to Figure 24.

#### **Population Issue #4: The Effects of Dominant Tapestry Trends**

Population tapestry is a “Segmentation System”. Segmentation Systems operate “on the theory that people with similar taste, lifestyles, and behaviors seek others with the same tastes – Like seeks like” (Tapestry Segmentation Reference Guide by ESRI). According to ESRI, these behaviors can be measured, predicted and targeted. The exploration of dominant Tapestry Segments presented below uses the ESRI Tapestry Segmentation System that “combines the ‘who’ of lifestyle demography with the ‘where’ of local neighborhood geography to create a model of various lifestyle segments of actual neighborhoods”.

The ESRI Tapestry Segmentation System has 65 market segment classifications that classify US neighborhoods based on their socioeconomic and demographic compositions. These classifications use available census and other variables (derived through sophisticated data mining techniques) that can distinguish consumer behavior from household characteristics, such as income and family type, to personal traits, like age, education, employment, and even housing choices. According to ESRI, the Tapestry Segmentation System classifies US neighborhoods (census block groups) according to the above mentioned 65 market segments, and “neighborhoods with the most similar characteristics are grouped together, while neighborhoods with divergent characteristics are separated”. To facilitate quick analysis of these segment distributions, the 65 market segments are combined into 12 “LifeMode Summary Groups” based on lifestyle and life stage.

Tapestry Segment designations have proven to be stable despite significant

demographic changes in the US population. Among the significant demographic changes since Census 2010 are:

- The US population has increased by two million people,
- More than 740,000 households have been created, and
- Half a million people have become homeowners.

Lynn Wombold, chief demographer and management of data development at ESRI, states that “although the demographic landscape of the United States changed significantly since Census 2000, [the] review and update of the segmentation system further confirms the stability of the Tapestry Segmentation System as some neighborhoods evolved and moved into other segments”.

The Tapestry Segment information analyzed in this section is the same data used by business marketing firms as they seek to understand consumer types, shopping patterns, product and media preferences, and customer retention. This data system is used for media targeting, direct mail, site location analysis, and customer profiling.

Figure 25 shows the Tapestry Segmentation Summary Groups generally present in the Westlake area. This slightly larger view of Westlake is presented here because much of present day Westlake is undeveloped. However, because of the nation-wide tendency of segment classifications to cling together, it can be reasonably projected that the segments within Westlake are and will be “Suburban Splendor” and “Boomburb”. Figure 25 shows the following Tapestry Segmentation within a 1 mile, 3 mile, and 5 mile radius of Westlake.

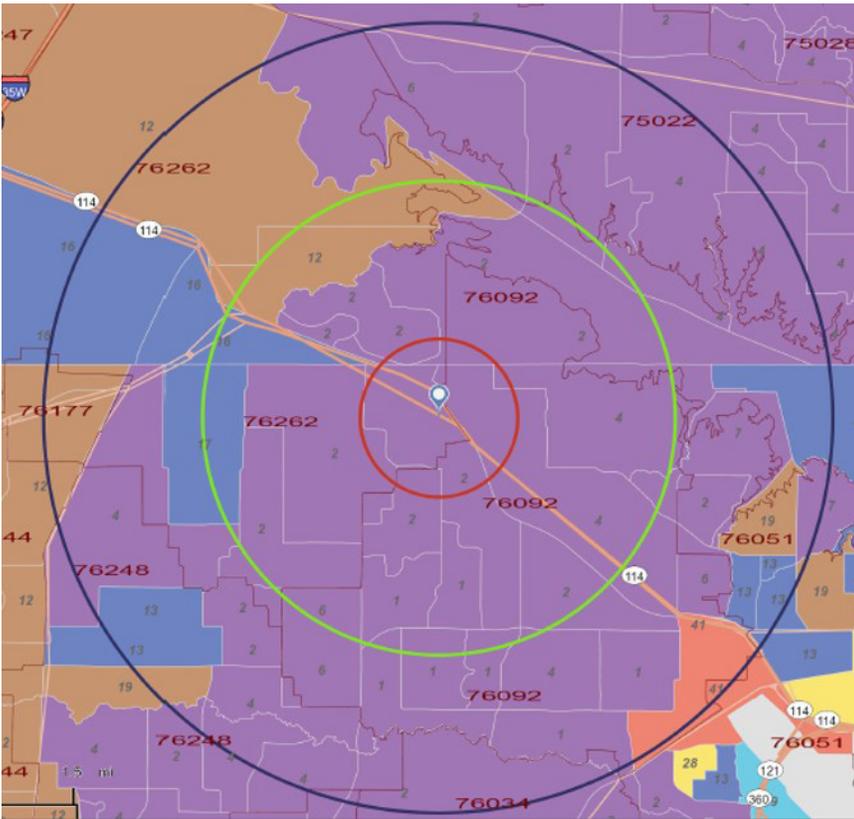


Figure 25: Tapestry 1-5 mile radii graphic, legend

- One Mile Radius**
  - #2, Suburban Splendor
  - #4, Boomburb
- Three Mile Radius**
  - #2, Suburban Splendor
  - #4 Boomburb
  - #1, Top Rung
  - #12, Up and Coming Families
  - #6, Sophisticated Squires
  - #17, Green Acres
  - #7, Exurbanites
- Five Mile Radius**
  - #2, Suburban Splendor
  - #4, Boomburb
  - #1, Top Rung
  - #13, Instyle
  - #12, Up and Coming Families
  - #16, Enterprising Professionals
  - #19, Milk and Cookies
  - #6, Sophisticated Squires
  - #7, Exurbanites

In order to better understand what these designations mean in terms of demographic characteristics. The Tapestry Segments identified above can be grouped into “Life Modes” summary groups, each with distinct demographic characteristics as follows (using descriptions from ESRI):

- **LifeMode: High Society (comprised of segment groups 1, 2, 4, 6, and 7):** Residents of the “High Society” neighborhoods are affluent and well educated. They represent slightly more than 12 percent of all U.S. households but generate nearly one-quarter of the total US income. Employment in high paying positions, such as professional or managerial occupations, is a primary reason why the median income for this group is \$100,216.00. Most households are married couple families who live in affluent neighborhoods. Although this is one of the least ethnically diverse

groups in the United States, it is one of the fastest growing, increasing by more than two percent annually since 2000. Residents of High Society are affluent and active – financially, civically, and physically. They participate in a wide variety of public activities and sports and travel extensively. Use the internet or radio instead of television to reach these markets.

- **LifeMode: Upscale Avenues (comprised of segments 13, 16, and 17):** Prosperity is the overriding attributes shared by the three segments in Upscale Avenues. Residents have earned their success from years of hard work. Similar to the High Society Segments, many in this group are also well educated with above-average earnings. However, their housing choices reveal their distinct preferences. Urban markets (referring to segments that make

up the Upscale Avenues Life Mode) such as “Urban Chic” and “Pacific Heights” favor townhouses and high-rises; “Pleasant-Ville residents prefer single-family homes in suburban neighborhoods; “Green Acres” residents opt for open space. Some have not settled on a home yet, such as renters and comfortable residents among “Enterprising Professionals”; others, such as “Cozy and Comfortable” residents, have been settled for years. The median household income is \$65,912.00. Prosperous domesticity also characterizes the lifestyle in Upscale Avenues. They invest in their homes; the owners work on landscaping and home remodeling projects; the renters buy new furnishings and appliances. They play golf, lift weights, go bicycling, and take domestic vacations. Although they are partial to new cars, they save and invest their earnings.

- **LifeMode: Family Portrait (comprised of segments 12 and 19):** Family Portrait has the fastest growing population of the LifeMode Summary Groups, driven primarily by the rapid increase in “Up and Coming Families” segment. Youth, family life, and the presence of children are the common characteristics across the five markets in Family Portrait. This group is also ethnically diverse; more than 30% of the residents are of Hispanic descent. The neighborhoods are predominantly composed of homeowners who live in single-family homes. Most households include married couples with children who contribute to the group’s large household size, averaging more than 3.09 persons per household. Their lifestyle reflects their youth and family orientation: buying infant and children’s clothing and toys and visiting theme parks and zoos.

In addition to LifeModes, one can see patterns of distribution in the Tapestry Segment distribution map (Figure 25) that are worth noting:

1. The **One Mile Zone** (centered by the Town Hall location) is dominated by the Suburban Splendor Tapestry Segment (85.7%). This means that 85.7% of the one mile households have the following characteristics:
  - a. Predominantly white
  - b. Half of the population is aged 35-64 years.
  - c. The median household income is \$115,369.00.
  - d. Labor force participation rates are high for both men and women; many households are two income.
  - e. Generally, salaries are supplemented with incomes from interest, dividends, and rental property at a rate much higher than the national level.
  - f. Well educated, more than half of the population aged 25 years and older hold a bachelor’s degree or graduate degree.
  - g. Home ownership rate is 92% with 62% of the houses built after 1979.
  - h. 85% of households own two or more vehicles.
  - i. Generally residents are members of business clubs and are active investors, using the internet to track and trade their stocks, bonds, and funds. They hold home equity credit lines, consult with financial planners, use stock ratings services, and own life insurance policies valued at approximately \$500,000.00. They shop at upscale retailers, home stores, and wholesalers. They order items over the phone and shop on-line for equipment.

This segment dominates the One Mile Zone and is 54.3% of the Three Mile Zone and drops to only 25.9% of the Five Mile Zone.

2. While the Boomburbs Segment is only 14.3% of the **One Mile Zone**, it is 17% of the **Three Mile Zone**, and rises to 22% of the **Five Mile Zone**. The Boomburg Segment has the following characteristics:
  - a. Younger than the Suburban Splendor Segment, with ages generally between 35 and 44 years.
  - b. The median household income of \$104,395.00 is slightly less than the Suburban Splendor segment but is still double that of the U.S. median.
  - c. Homeownership rate at 87 percent is higher than the national rate.
  - d. Family vacations are a top priority; trips to Disney World, Sea World, and other theme parks are popular destinations. For exercise, they play tennis and golf, ski, lift weights, and jog. They will spend more than \$250.00 a year on high end sports equipment and buy family DVD's for their collection.
3. Combined, the Suburban Splendor Segment and the Boomburbs Segment represent 100% of the **One Mile Zone**, 71.3% of the **Three Mile Zone**, and 48% of the **Five Mile Zone**. The 48% is significant in the **Five Mile Zone** because the remaining percentage is comprised of 8 segment groups, all with small shares of the total population.

The dominance of the Suburban Splendor and Boomburbs Tapestry Segments mean that the High Society LifeMode neighborhood type is, and will be, the dominant demographic characteristic of Westlake's growth. This is best illustrated in Figure 26, where flags identifying

neighborhoods are dominated by the label "High Society". However, there is a segment just west of Westlake's center, labeled Upscale Avenues, suggesting a somewhat younger population desiring higher density housing options. In that most of this area is committed to commercial entitlement, High Society remains the dominant neighborhood type. Perhaps this area is designated for Upscale Avenues because of the pending commercial dominance. Another dynamic that reinforces the continued dominance of the High Society neighborhood type is supported by its robust growth nationally. As stated above, this group has been increasing nationally by more than two percent per year since 2000. In the Dallas Fort Worth Metroplex that figure should be increased by the amount that the Metroplex growth rate exceeds the national growth rate. The national growth rate is 0.9% and the Metroplex (Dallas, Tarrant, Collin, Denton, and Rockwall counties) growth rate is 2.10%. Therefore, the 2.0% national average for growth of High Society neighborhood groups should be adjusted to 4.6% in the Westlake area. This is 69% of the Planning Growth Rate, suggesting that right at 70% of the future Westlake population will likely identify with the High Society LifeMode group (about the same representation within Westlake as now exists within the Three Mile Zone). The future dominance of High Society neighborhoods raises several important planning issues:

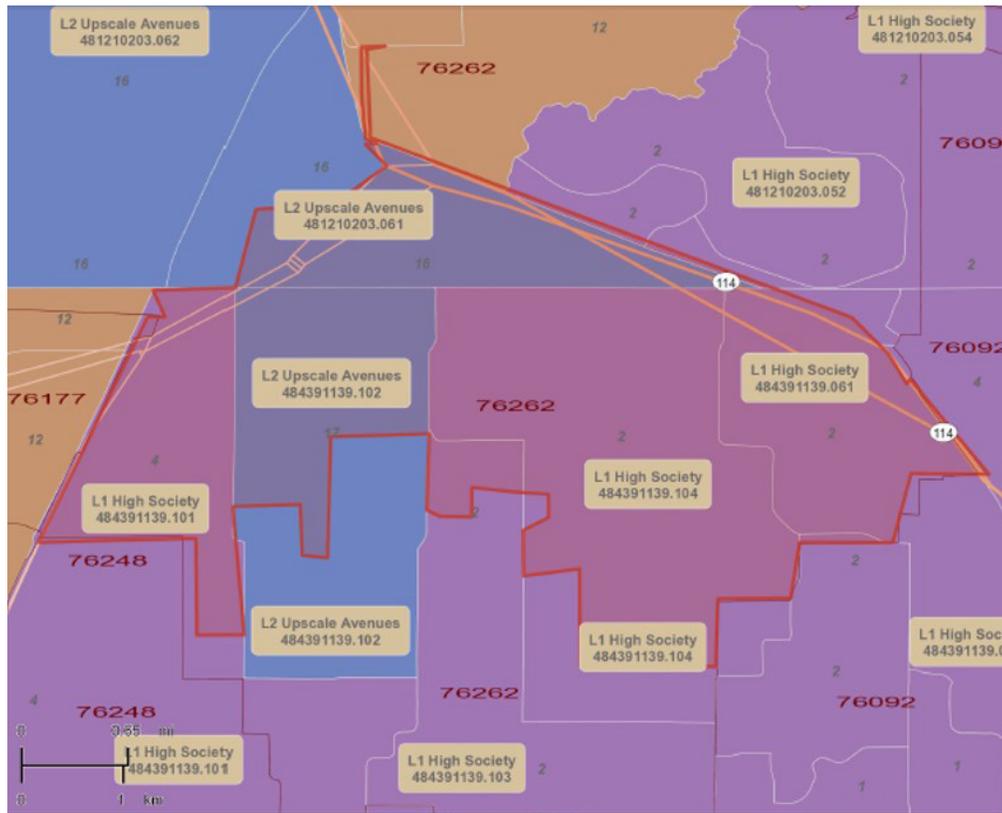


Figure 26: Tapestry High Society Neighborhoods

- 1. Value Contextually Defined:** The high price point of houses for High Society neighborhoods are supported by contextual conditions that support such value. Like Highland Park, these include schools, close proximity of similar houses, community amenities, supporting institutions, sense of boundary definition, and uniform quality of design/construction. To date, Westlake, sitting in a pastoral setting that defines it apart from more dense neighbors with Westlake Academy and well-designed communities (such as Vaquero Estates), offers sufficient context to support high value. This nurtures continued growth of the High Society neighborhood type. However, as Westlake fills in, it will likely encounter conditions that could augment that context.
- 2. Commercial Effects:** The magnitude of commercial development proposed by existing entitlement could augment the contextual attributes that support high end residential value unless appropriate design measures are taken within the public domain to tie the two land use types together in an organic and meaningful whole. Remember that the ESRI Tapestry Map showed Upscale Avenues neighborhoods, not High Society neighborhoods, in the vicinity of the most-dense commercial entitlement.

**3. Edge Effects:** In areas south of Westlake (Keller) it is likely that Upscale Avenues neighborhoods will dominate, with a median income about half the projected Westlake median. Therefore, higher density, lower value housing will share an adjacency with the High Society neighborhoods. In such cases, attention to the public domain that separates them must be considered in order to sustain the contextual attributes that define value in Westlake. This is particularly true when streets like Pearson Road or Precinct Line Road become regional in identity and less associated with Westlake.

In summary, Westlake's projected population of 7,000 people will substantially reside in High Society neighborhoods (70%) mostly comprised of the Suburban Splendor Segment and the remaining 30% will flow to the alternative housing choices preferred by younger Boomburb Segments. Overall, Westlake will remain a high-income township if it is successful in preserving the contextual assets that support value. Otherwise, there could be expansion of Urban Avenues neighborhoods (mostly from the south) into the Westlake area.

### **Population Issue #5: The Effects of Population Issues on Westlake Academy**

Both the dominant population tapestry segments that will comprise Westlake's future population and the magnitude of population growth within the Westlake region will influence Westlake Academy enrollment. More specifically these influences will likely be as follows:

#### **Student Distribution as a Result of Dominant Tapestry Trends:**

The growth of student enrollment since 2000 is attributed to the growth in the number of school age children per household (18 in 2000 and 357 in 2010 according to data provided by SDS). Figure 28 puts the total number of children in Westlake at 357 with 58 of that number being nursery/ preschool/ kindergarten attendees. Therefore, the number of children available to Westlake Academy for enrollment in 2010 is 312 plus the small portion of the 58 that is in Kindergarten, making the total school age population of 306 identified by SDS, which is a reasonable estimate. Of that 306 people, only 146 are not in private schools, according to ACS, and, therefore, available for attending Westlake Academy. Again, this compares favorably with the Academy's 2010 census stating that Westlake Resident (WR) enrollment, excluding employee exemptions, is 139. It would be reasonable at this point to surmise that some of these 146 students will attend other public schools (Keller, etc.). Assuming that 15% attend other public schools, the WR enrollee potential would be 125. If one subtracts 125 from 139, the possible number of grandchildren in the mix is 14, which is about the same number of grandchildren reported by Westlake Academy in the 2013-2014 census.

Such a calculation illustrates that without recognizing the effect of the grandparent

## Population Pyramid of Westlake, Texas in 2010

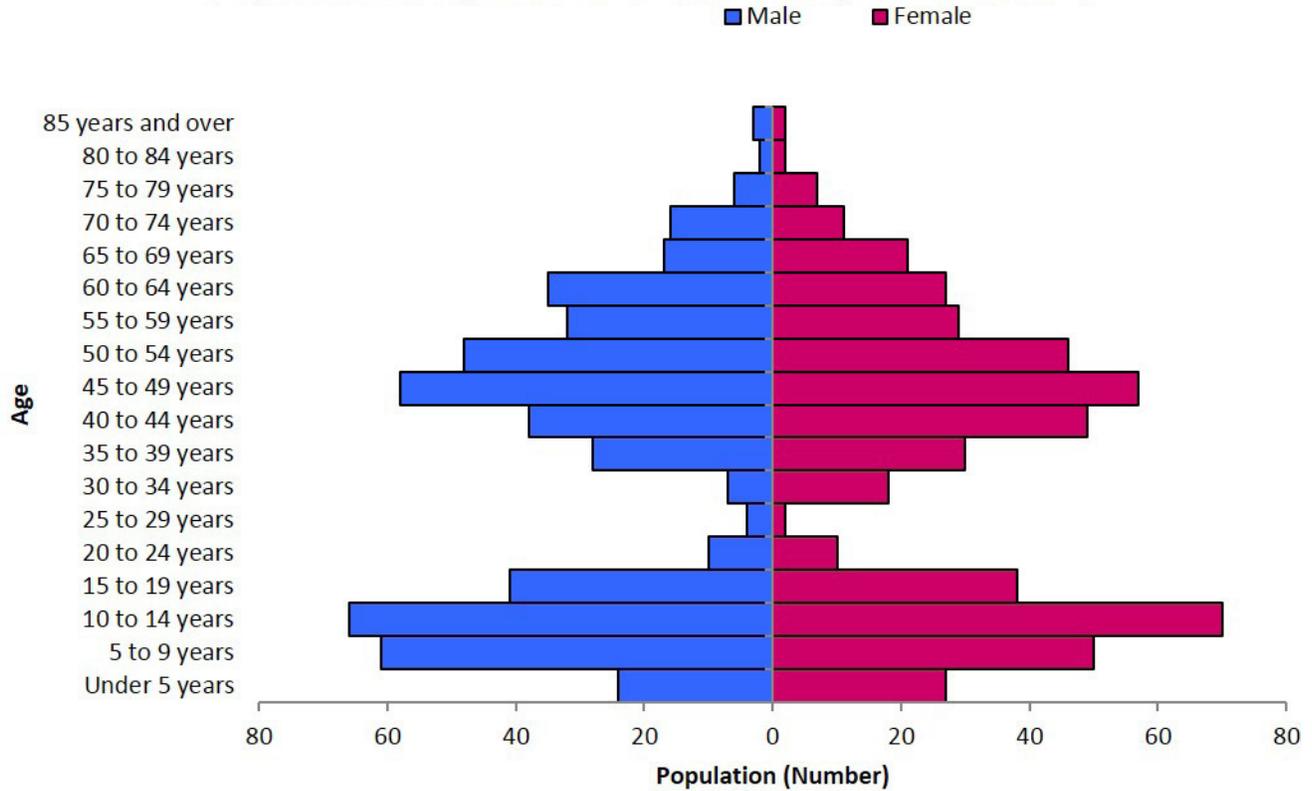


Figure 27: Population Pyramid

exemption, the gross number hides the true impact of such exemption. If we compare 2010 statistics to 2013 statistics, one can see that the numbers just do not add up without an alternative explanation. According to various studies, the Westlake resident student enrollment in 2010 was 139, not counting employee exemption or .46 students per household ( $139/302 = .46$ ). When one does the same calculation for 2013, the result is .54 students per household (170 enrollees that are not admitted through employee or grandparent exemption/ $314 = .54$ ). This is an extremely dramatic increase in the students per household over a very short period of time. The volatility of the numeric change suggests that using a simple “students-per-household” approach to projection could lead to an outcome that later data would not support. A more

detailed explanation of the relationship of WR enrollees to number of households must be considered with a better understanding of the employee exemption and “grandparent exemption effect”

The average number of children per household with children in Westlake is 2.61 children (0-19) per household with the majority of households being husband and wife families (86.1% or 260 households). 2010 Census data also states that only 47.7% of the households have children (144 households). Therefore, the remaining significant number of households (116 households) are childless, husband and wife households or, more likely, empty nesters when one considers the dominant tapestry classifications discussed earlier.

Census information (as shown in Figure

## ACS 2006-2010 data

Total population: 881

	Westlake, TX		Texas		U.S.		
	Total	Public	Private	Public	Private	Public	Private
Nursery School, Preschool, Kindergarten	58	53.45%	46.55%	75.63%	24.37%	69.28%	30.72%
Elementary School (Grades 1-8)	199	67.34%, <a href="#">see rank</a>	32.66%, <a href="#">see rank</a>	93.40%	6.60%	89.31%	10.69%
High School (Grades 9-12)	100	9.00%, <a href="#">see rank</a>	91.00%, <a href="#">see rank</a>	94.01%	5.99%	90.48%	9.52%
College	13	100.00%, <a href="#">see rank</a>	0.00%, <a href="#">see rank</a>	84.32%	15.68%	77.07%	22.93%
Graduate School	6	0.00%, <a href="#">see rank</a>	100.00%, <a href="#">see rank</a>	71.39%	28.61%	58.85%	41.15%

Figure 28: ACS 2006-2010 Data

27) suggests that 51% of the Westlake population is between 40 and 84. Therefore, 51% are beyond child bearing years while only 9% are between 25 and 39. ESRI also shows that the population is evenly split between men and women. Using the aforementioned 2.6 children per household (assuming 92 adults, age 25 to 39, in the present total population will translate to 46 households), the childbearing population would only produce 119 children, of which most will be age 5 to 9. The Westlake Academy enrollment for ages 5 to 9 is 127, of which 14 are documented as grandchildren and 27 are admitted under the employee exemption (or moved outside primary area), making the resident student total 86. This compares favorably with the 119 number, as some percentage will attend other schools and some are younger than 5 or older than 9. To have a census ratio of 11.2% of the total population being children ages 5 to 9 where the number of children in that age group equaled the 86 children currently enrolled at Westlake Academy (80% capture rate), the total population of children would have to be 416 or slightly more than the current population of children (391). The American Community Survey (ACS) data above in Figure 28 suggests that approximately 38% (in the grade 1-8 group) are attending private

school. Assuming that only 20% of the younger children are attending private school, it would take a child (ages 5 to 9) population of 107 to fill the current enrollment. This number of children should be 28% of the total child population of 382. This compares favorably with the current 391 children number. Therefore, Westlake Academy is attracting 80% of the child age 5 to 9 population.

Most significant in Figure 27 is that 51% of the population is between the ages 40 and 84; and according to the Population Tapestry Analysis, this number may grow. According to Westlake Academy, 39% to 68% of Westlake households may have grandchildren. Such a high percentage of grandparents, 39% to 68%, is a wide range that compliments the Population Tapestry Analysis presented earlier in this section. The dominant tapestry analysis states that:

- The High Society LifeMode will grow 2% annually (nationally). Applying this rate of growth to Westlake 2010 Households (302), would bring the 2013 household total to 320 households or nearly the current number (314).
- The "Suburban Splendor" and "Boomburbs" households represent 71.2% of all households within a 3 mile radius of the Town Hall and comprise the largest percentage of the High Society LifeMode Neighborhood Group.



Figure 29: Westlake Academy

- The average ages of the people in these Tapestry Segment groups range between 35 to 64 years old.
- The 35 to 64 age group, living in husband and wife households are most likely to have older school age children (grade 6 through 12 and 91% of 9 through 12 attend private school) or be empty nester grandparents.
- The new home closings at the \$1 million + price point, projected by SDS, increase every year. This suggests that the influx of Social Splendor and Boomburb Tapestry groups will continue to dominate the Westlake market (as suggested in the earlier tapestry analysis) and such in-migration will mean more enrollees qualifying through the “Grandparent Exemption”
- The number of grandchildren per grandparent household is greater than the number of children per household; the somewhat asymptotic growth curve of WR enrollees per household (2010 =.46, and 2013=.54) is attributable to a

greater number of grandparents with higher numbers of qualified enrollees per household as a result of the grandparent exemption.

If the now-empty-nester households have 2.6 children and their children have 2.6 children each, the potential enrollees per grandparent household could be 6.8 instead of the 2.6 (the number of children per household at Westlake's 144 households with children in 2010). Therefore, a projection for Westlake enrollment should look at the various Tapestry Segments within the community and use a rate per household that is based on its tapestry characteristics. Using lot size and proximity to commercial development as an indicator of price point, the smaller and commercially exposed lots will likely yield a home in the \$500,000 to \$800,000 range, while larger lots will continue to be over \$1 million. The lower price point would be households having children under roof while the dominant percentage

UNITS	CONTEXT	PRICE POINT	COMMENT
704	When the location in the westerly portions of Westlake, in PD's with more than 500,000 sf. of commercial entitlement, and/ or 15,000sf. lots	\$500,000-\$700,000	Areas where tapestry analysis shoes expansion of "Upscale Avenues" Lifestyle Mode. These are younger families with children and income. Therefore, able to contribute resident enrollees to Westlake Academy. With 704 households times the number of households with children (assume 80%), times the children per household (2.6), times the percent of total in public school at k, 1-8, and 9-12 rates respectively. Total= 766
1116	When lots are between 20,000 and 2 acres and/ or located in easterly portions of Westlake, well isolated from Highway 114.	\$700,000-\$1million+	These lot developments are located in areas where the tapestry analysis shows a dominance of Suburban Splendor and Boomburbs segments. With 1116 households times the number of households with husband and wife (86.1%), times the grandchildren per household (adjusted from 6.7 to 5) for 35% of households and children per household for 50% of households, times the percent of total in public school at k, 1-8, and 9-12 rates respectively. Total=1500
103	Lots that are 2 acres or larger.	\$1million+	Same participation as households with children at home = 95
<b>TOTAL</b>			<b>2,362 at build out in 2036 at 11%*</b>

Figure 30: Unit Price Point and Enrollment Trends

\*this is a high grandchild analysis and is less than the SDS high growth scenario of 4,806 when projected out to 2036 at an annual growth rate of 14.5% (the rate illustrated on the enrollment growth projection graph in Figure 28), meaning that it falls somewhere between the high and moderate growth projections at 10.7%.

of higher price homes would potentially be empty nesters, bringing grandchildren to the school enrollment count. Figure 30 summarizes this approach and yields a projected public school student availability of 2,362 children.

Having factored out the private school portion of eligible children and assuming the Academy can attract 79.5% of the eligible public school children (2,362) to Westlake Academy, the total potential Westlake Academy enrollment (taking into account the potential "grandparent effect") would be 1,876 enrollees. This shows a potential increase of grandchildren eligible for enrollment from 7% today (14 grandchildren out

of a WR enrollment of 184) to 17% (333 grandchildren out of a potential WR enrollment eligibility of 1,876). This would mean that 35% of the 963 grandchildren (grandchildren of the 1,116 households above) are attending Westlake Academy. This seems reasonable as many grandchildren will not live in the vicinity. However, somewhere between now and build-out, Westlake Academy will be at its maximum capacity (probably in the 1,200-1,500 student range, which is larger than St. Marks or Episcopal School of Dallas). The total number of school age children in the projected Westlake population (6,927 as defined by entitlement capacity) is 2,269, and the potentially eligible grandchildren are some portion of 963 (estimated at

POLICE SERVICE TODAY	
Westlake Population	1,000
Keller Population	41,000
Current Total police Service Population	42,000
Keller PD Sworn Officers	50
Keller Officers per 1,000 residents	1.2
National Average Officers per 1,000 residents	2.2

Figure 31: Police Service Today

POLICE SERVICE AT BUILD-OUT	
Westlake Additional Daytime Population	45,121
60% Population Reduction Due to Private Commercial Security	18,048
Current Keller PD Officers per 1,000 residents	1.2
Officers Needed at Current ratio	22
Westlake Build-out resident Population	6,846
National Average Officers per 1,000 residents	2.2
Officers Needed at National Ratio	15
Total Officers Needed at Build-out	37

Figure 32: Police Service at Build-Out

333) for a total of 2,602. This means that approximately half of the eligible enrollees will have to consider other options. Therefore, Westlake Academy will be faced with either a revision of present day enrollment policies and/or facility expansion.

**Growth of Westlake Employment as a Result of Commercial Magnitude:**

The number of city employees may grow substantially as the commercial entitlements of the Westlake Planned Development Ordinances (PD's) begin to go vertical. There are approximately 18,000,000 square feet of non-residential development entitlement embedded within the Westlake PD's (Hotel-2,210,000 sf., Office/ Industrial-13,314,980 sf., and Retail-3,127,368 sf.). The number of policemen and firemen required to adequately serve such a level of development significantly exceeds the number that a town population of 6,927 would typically require. The

following charts present an approach to determination of the number of policemen and firemen needed to serve the build-out of Westlake. The number of firemen is attained by using a square foot per resident equivalent to determine the number of equivalent residents that the entitled non-residential square footage represents.

Using the above analysis as a basis of projecting future police and fire need, Westlake potentially requires 24 firemen and 37 policemen. However, the level of development imposes other considerations in determining this figure. These other considerations include:

- **Response time:** Generally 5 to 6 minute response times are desired. However, the ability to attain such a response time in a city with significant traffic choke points will be challenged (see Circulation Analysis). The total build-out of the non-residential and residential entitlements could generate as much

FIRE SERVICE TODAY	
Westlake Population	1,000
Population/ Residential Square Footage Equivalent	1,611
Westlake Non-residential Square Footage	1,995,000
Westlake Full-Time Firefighters	9
Westlake Firefighters per 1,000 residents	9
National Median (Pop.> 10,000 res.), Firefighters per 1,000 residents	1

Figure 33: Fire Service Today

FIRE SERVICE AT BUILD-OUT (Residential Equivalent Method)	
Commercial Square Footage at Build-out	18,000,000
Westlake Square Feet per Resident, Single Family Households	1,611
Commercial Equivalent Population at Single Family Household Conversion rate	11,173
National Median (Pop.>25,000 res.), Firemen per 1,000 residents	1.25
Firefighters Needed at National Ratio	14
Westlake Build-out Resident Population	6,846
National Median (Pop.> 10,000 res.), Firemen per 1,000 residents	1.2
Firefighters Needed at National Ratio (less than current ratio of 9/ 1,000 pop.)	9.3
Total Firefighters Needed at Build-out (using current 9 instead of 7)	24

Figure 34: Fire Service at Build-Out

as 300,000 vehicle trips per day in addition to the externally generated trips accessing SH 114 through Westlake. This may require more than one station, or at least a substation, which translates into additional employment. With an average of 12 firemen per station and 2 stations, Westlake will need 24 firemen (close to the number stated above).

- **Floor Area Ratio (horizontal spread of development):** The low building height (typically 5 to 6 stories) that would house non-residential square footage will spread development out over a large area that may require additional emergency personnel to adequately serve.
- **Support facilities (such as training facilities):** With the significantly more complex physical condition of such a large commercial center, more staff will may needed for training purposes.

In addition to emergency services, the general size of city administrative and public maintenance staff will also have to increase. If one assumes that city employment will look like Highland Park employment, then the total number of employees at build-out would be 120 (Highland Park total employees) less 60 (60 non-administrative public safety employees) for a net employment of 60, plus the 53 projected Westlake public safety employees, for a total Westlake employment of 113 employed in public safety (firemen and policemen). 113 employees is a 364% increase over the present employment of 31, not counting Westlake Academy.

**Campus Isolation as a Result of Traffic Generation and Commercial Development:** The final impact of population and commercial growth on Westlake Academy is the setting of its

location. The pastoral landscape that brackets the present academy site would see significant residential and commercial development. In addition, the Future Land Use Plan shows Westlake Academy being served by commercial streets as Dove Road is realigned (see Circulation Analysis). Therefore, attention must be paid to the view from, and character of, the roadway approaching Westlake Academy so that the pastoral setting is maintained.

## CONCLUSION

This assessment has considered the issue of population and demographics and generally portrays a future of about 6,927 persons (the build-out capacity), which can be attained in approximately 2036. Most of this population will reside in households typifying the Suburban Splendor Tapestry Group; such demographic clustering will impact enrollment at Westlake Academy. In addition, the attainment of the build-out population in a context of high demand will appreciate property values and, thereby, possibly trigger a “stimulative condition”, which could move the Town toward a state of instability. Finally, the \$500,000 to \$1 million+ housing market necessitates that a certain amount of contextual support exists in order to maintain property values. However, such a context, as it exists today, may be augmented by the high level of commercialization planned for the Town unless significant investment in a public domain that mitigates potential conflicts is made.

## 2. EXISTING CONDITIONS ASSESSMENT

### **Introduction:**

The Existing Conditions Analysis considers the relationship between history, culture, natural setting, and built fabric that uniquely defines Westlake. In the course of this assessment, naturally occurring, organic sub-districts will be identified as well as the strengths, weaknesses, opportunities, and constraints that this unique confluence of conditions creates.



Figure 35: 1956 Historic Aerial

### Analysis of Historic Aerials and Changes Over Time:

This analysis of Westlake starts with Westlake's tenure as a host to a ranch belonging to Dallas Attorney, Glen Turner. The pasture and livestock management decisions made during this period create a template upon which future uses of the land are, and will be, built. Mr. Turner acquired the Circle "T" ranch property in 1956. Therefore, taking a look at historic aerials from 1956 to the present should reveal how rural beginnings translate into present conditions.

**1956 Aerial:** The aerial photograph seen in Figure 35 was taken in 1956 (the year

of Mr. Turner's acquisition). Using the reference roadways, highlighted in yellow, one can see the landscape before most of these roadways were built. Within this photograph, there are numerous straight lines. Because straight lines do not exist in nature, such lines must be fence lines expressing crossed fenced pastures and/or property lines. This means that the consolidated pasture lands of Circle 'T' Ranch were not present, for the most part. Compare this to the present condition where many of these internal lines have been removed and pasture lands consolidated in the yet un-built western portions of Westlake (currently located mostly in Planned Development 3). In the

eastern and southern portions of Westlake, many of these original internal fence and property lines, visible in the 1956 aerial, now express themselves as project limits. The boundary lines of Glenwyck Farms, Terra Bella, and Vaquero are clearly seen in the 1956 land patterns. This is most likely related to the existence of Dove Road at that time and the move to purchase property along existing roadways in the early days of Westlake Development. One can even see the Vaquero entry drive in 1956 which then was a ranch road. The south to north roads flowing into the Westlake area in 1956 are the same north to south roads that residential development, to date, clings to (areas west of Davis Boulevard). These roads include Roanoke Road, Ottinger Road, Pearson Lane, and Precinct Line Road. Therefore, Dove Road east of Davis Boulevard and the south to north rural roads west of Davis Boulevard became the framework of development within Westlake seen as early as 1979 and definitely in full swing by 1990 with roads like Lazy Lane and Greenwood Lane being completely built out. By 2001, the grading work for Vaquero is also well under way. The significance of this infill pattern is that residential development, to date, is placed along a general north to south grain, infilling smaller parcels lying between the county and rural roads flowing into Westlake and, thereby, internalizing natural drainage ways running between such roads.

In 1956, Turner Lake was not yet built, and the location of Turner Lake was then a point of confluence for two active creek ways complete with well-defined bed and bank as well as a robust riparian plant community. This active creek system flowed across the right-of-way of SH 114, which was then a small two-lane rural highway that connected with a primary creek system now flowing north of Trophy

Club. Today, that creek system has been significantly altered, and most of the riparian plant community is gone. Once active creek ways are now compromised by in-line detention and check dams. The point of creek confluence is now the location of Turner Lake and the natural connection across SH 114 was replaced by a spillway that leads water to a piped connection. That pathway from spillway to inlet shows significant erosion in the present day aerial. The 1956 aerial shows a continuous branch of the converging creeks extending to the south, between Ottinger Rd. and Stone Hollow Rd. By 2001, this system element is significantly compromised with inline detention, loss of riparian plant communities and physical discontinuities. Much of the plant community that populates the creek way within Circle "T" has been converted to pasture land. After 1956, there is a continued succession of removing forested areas for conversion to pasture land. Without the entourage of natural features, the ability of the creekway to influence future development (north of Dove Road) in the same way that the streets influenced past development (south of Dove Road) is weakened; the PD Development Plan reflects a new development orientation, which is discussed later in this analysis.

Among present day property lines that are visible in the 1956 aerial as fence lines, is an east to west fence line running along what is presently the northern property line of Fidelity Investments, which then extends west along the northern property line of Deloitte and the northern building line of Westlake Academy to a fence corner that exists today and is visible on the 1956 aerial. In that this fence line has already become the northern boundary of present day development, it will likely become the southern boundary of future development, thereby bringing the agricultural past into the future. It is already the southern line of



Figure 36: 1963 Historic Aerial

the R-1 residentially zoned area surrounded by PD-3. If this line has such influence, it should be recognized in the design of development as Westlake matures. While the fence line is still there, a lot of the tree canopy along its alignment is now gone.

The retention lakes now west of Fidelity Investments can be seen as “under construction” in the 1956 aerial. These and other water bodies, such as Turner Lake, were constructed as part of the ranch conversion, making stock ponds for fenced pasture areas.

Finally, there is a large forested area that currently lies south of Solana Boulevard that is visible in 1956, which has the same

configuration as one sees today.

**1963 Aerial:** Figure 36 shows some important changes from 1956, which were made in a few short years. The first of these is the construction of Turner Lake and other retention ponds for stock watering purposes. Other changes include:

- A loss of tree cover visible in the 1956 photograph. This reflects a consolidation of pasture land in accordance with ranch management practices and begins to set up the development template of PD 3.
- Various barns and ranch structures are now visible, further establishing the ranch consolidation. The most important structures are the ranch



Figure 37: 1970 Historic Aerial

house and house lying at the end of the Turner Lake canal.

As of yet, significant residential development has not entered the Westlake Area.

**1970 Aerial:** Figure 37 shows Westlake in 1970. There is not much change from earlier images except that trees on the present day Westlake Academy site are gone. Note that there is still no significant residential development within the Westlake area. Also, it is noteworthy to point out that further pasture consolidation within the Circle "T" Ranch has further obscured old parcel lines that were visible on earlier aerials because of vegetative



Figure 38: 1990 Historic Aerial

differentiations at the old fence lines. However, ranch management within the Circle “T” boundary has begun to disperse the historic foot print of previous ownership.

**1990 Aerial:** Figure 38 shows Westlake in 1990. While not much has changed, there is residential development beginning to enter the Westlake area from the south along such streets as Lazy Lane. The early 90’s was the beginning of residential development in the Southlake/Colleyville area with such projects as South Ridge Lakes (along 1709). There is a steady march of housing infill northward along Pearson Lane and entering Westlake by 1990.

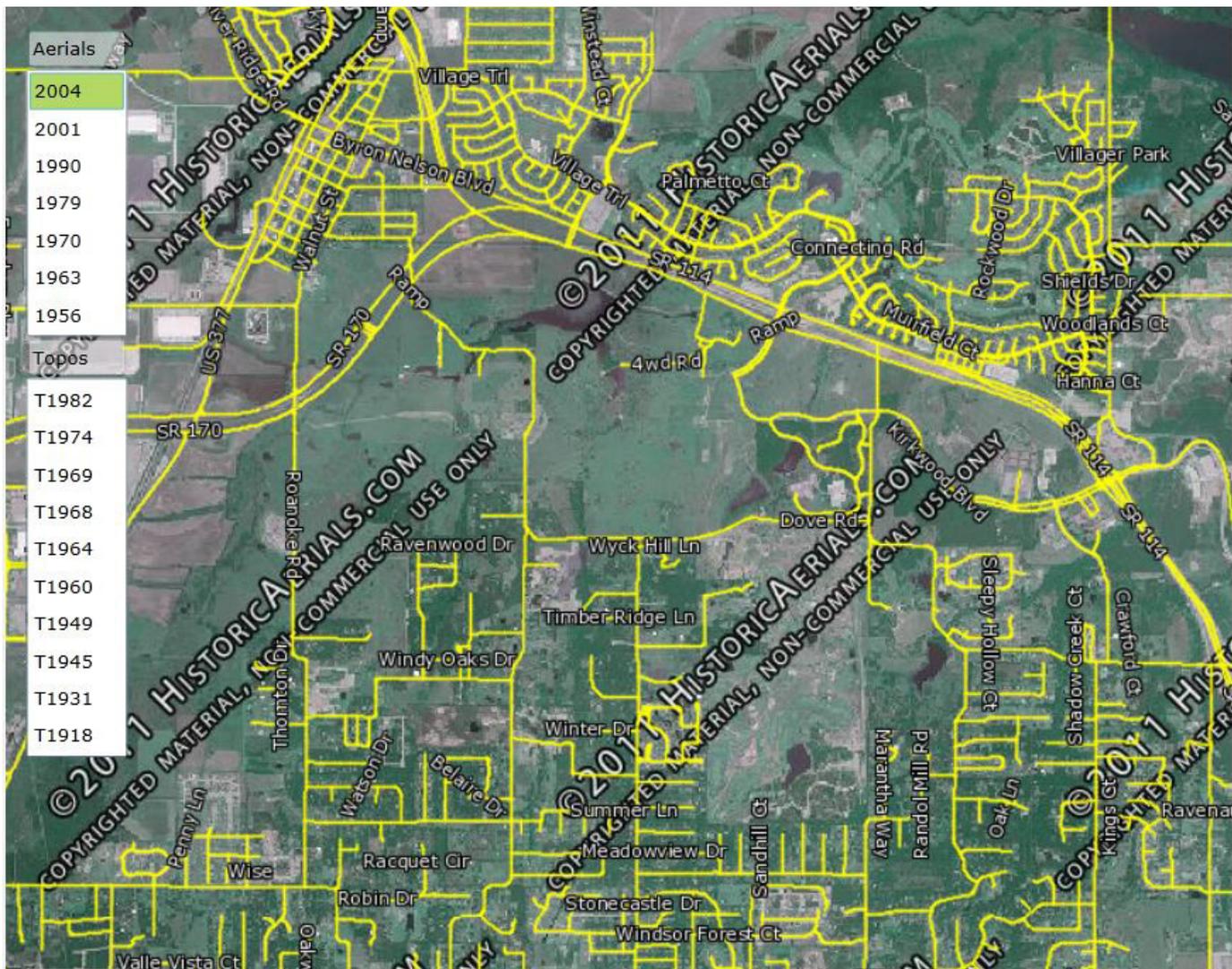


Figure 39: 2004 Historic Aerial

**2004 Aerial:** Figure 39 shows Westlake in 2004. Westlake Academy is visible, Vaquero Estates is complete (started in 2001), and substantially more residential development (which has progressed north along the south to north roads mentioned earlier) at the southern edge of Circle "T" due to Dove Road, which is seen here as a residential break-off line. Now clearly visible is an area of consolidated pastures and system of stock ponds.

In addition to more residential development, Solana North and South are visible, as well as the first phase of Fidelity Investment. This additional development begins to suggest a potential, and

emerging conflict of, residential development (running generally north to south) and commercial development (generally running east to west, along the SH 114 frontage). Therefore, whatever is developed north of Dove Road will define the interface between the north/south residential and the east/west commercial. Whether such future development will successfully reconcile the different patterns into a consolidated whole is a function of design. Roadways define the direction of and edges of development south of Dove Road. However, north of Dove Road amenity systems will define the direction of and edges of development, according to the Planned Development instruments.

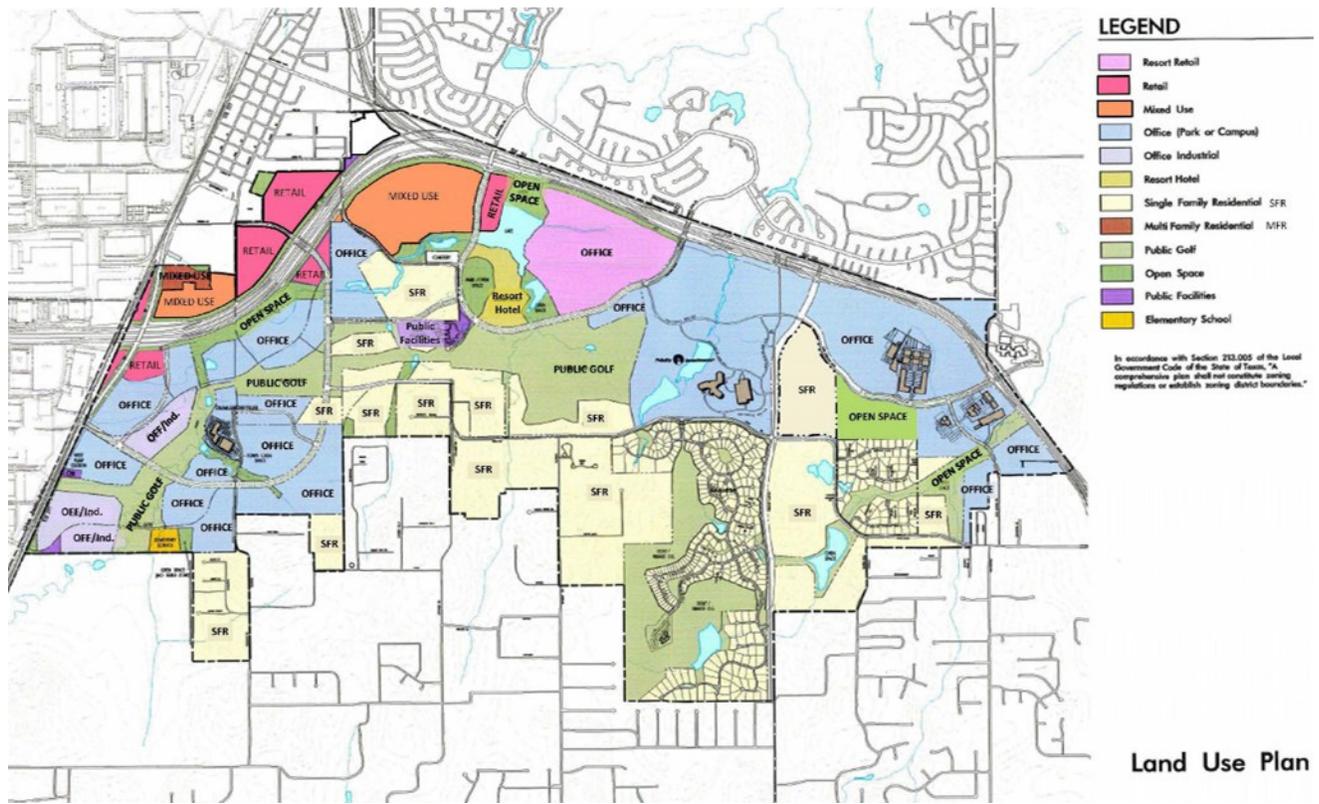


Figure 40: Existing Land Use Plan

2004 is also the year that Westlake's Land Use Plan (Figure 40) was adopted, and it illustrates the above point. In this Plan, Dove Road is the termination of residential development patterns along south to north roads and serves as the introduction of a new development reference north of Dove Road, namely the public golf course system and SH 114 (which run east to west). With the exception of the R-1 zoning area (north side of Westlake Academy), there is no residential development north of the golf course, making the golf course a residential growth boundary. In 2004 and today, Westlake Academy is served by Dove road, still a rural roadway and part of the pastoral setting that the Academy enjoys. However, in the 2004 Land Use Plan, Dove Road is realigned in an east/west direction, south of the Academy, becoming part of the general east/west grain of future development and making a residential road system that is separate from the non-residential road system,

except for two points of connection. As a result, Westlake Academy is served by a commercial street, which is a significant transformation of the current setting. Also, southern residential areas, including Southlake and Keller, seeking access to the commercial uses fronting SH 114 will flow to Dove Road via routes like Pearson Lane having to flow east or west to Precinct Line or a future commercial road before returning east or west to the commercial center. The discontinuation of south to north roads north of Dove makes Dove a primary arterial in terms of future traffic volume coming into Westlake from the south.

Finally, the augmentation of natural creek ways that began with the creation of pastures and stock ponds will have to remain in order to accommodate storm water run-off from future development. The 100 year, 24 hour. storm event in the Dallas area is projected to deliver 9.5

inches of rain. At a .4 to .45 FAR level of development, the 1,091 acres of commercial entitlement would require detention capability ranging from 267 to 775 acre feet. A potential detention requirement in the middle of this range (521 acre feet) would be accommodated in 116 acres of water at an average depth of 4.5 feet. The present level of detention (counting Turner Lake, the two lakes at Fidelity Investments, the detention lake at Deloitte, and one detention pond on the far west side of Westlake) is roughly 19 acres. Therefore, an additional 100 +/- acres of water located in logical storm water collection areas along existing creek ways or other low areas will dramatically change the current creek way system. Further, metered flow from detention areas must recognize the extent to which Trophy Club has restricted flood plain capacity downstream, which can become more restricted by future development. Therefore, a downstream sensitivity to any rise in water levels caused by development in Westlake can further influence the magnitude of detention capacity that has to be maintained in Westlake. The following quote from a technical memorandum prepared by Gresham Smith Partners describes the detention situation today:

*“Regional detention facilities are a viable means to mitigate the increase flows resulting from new development. Low impact development best management practices could also be used in concert with detention. Modifications to existing dams, restricting the size of openings at new bridges, utilizing existing lakes, wetlands, and streams can be utilized for means of providing new storm water runoff detention. The 2000 drainage study showed that fully developed conditions within the Marshall and Kirkwood Watersheds would require large detention facilities, 52 acres for the Marshall Watershed and 17 acres for the Kirkwood Watershed. The costs could be borne by the upstream communities, including the City of Keller, The City of Fort Worth, and the City of Southlake, where increased flows originate. Development within the Town of Westlake could potentially impact Trophy Club and the City of Southlake. A closer look at current PDs is warranted to further refine the amount of required detention in the future (not within the scope of this effort). Based on 1,091 acres of commercial entitlements and a FAR of .4 to .45, crude methods of estimating future detention requirements indicate a range from approximately 200 to 775 acre-feet of additional detention.”*

Perhaps the most significant change for Westlake is reorganization of the natural mosaic that exists today (Figure 41) to what will likely exist in the future. Based on the above analysis, the historic south to north flow of water in six complete creek ways has, through agricultural land management improvements, been reduced and much of the riparian plant community removed. However, the 1990 aerial (Figure 38) shows a number of the riparian plan clusters still in existence, reflecting a natural pattern that reinforces the south to north growth pattern of Westlake development to date. By 2013 the only riparian communities left are those within residentially developed areas, with the exception of Solana. The earlier described redirection of future commercial development from the south/north historic pattern to an east/west future pattern means that the replacement landscape (open areas within and flanking the large open space system) will also be arranged in an east/west pattern. Planning will be needed to make sure that the natural system that once linked the community across its south to north width will be more than simply a barrier that separates commercial and residential development.

The above analysis of historic aerals and natural systems reflects a south to north development history coming against an east to west development future that will also redirect the natural grain of the community, changing its historic relationship to development to a threshold of change from residential to commercial. However, the dramatic need for increased detention capacity may necessitate such change anyway, making design more critical than ever.

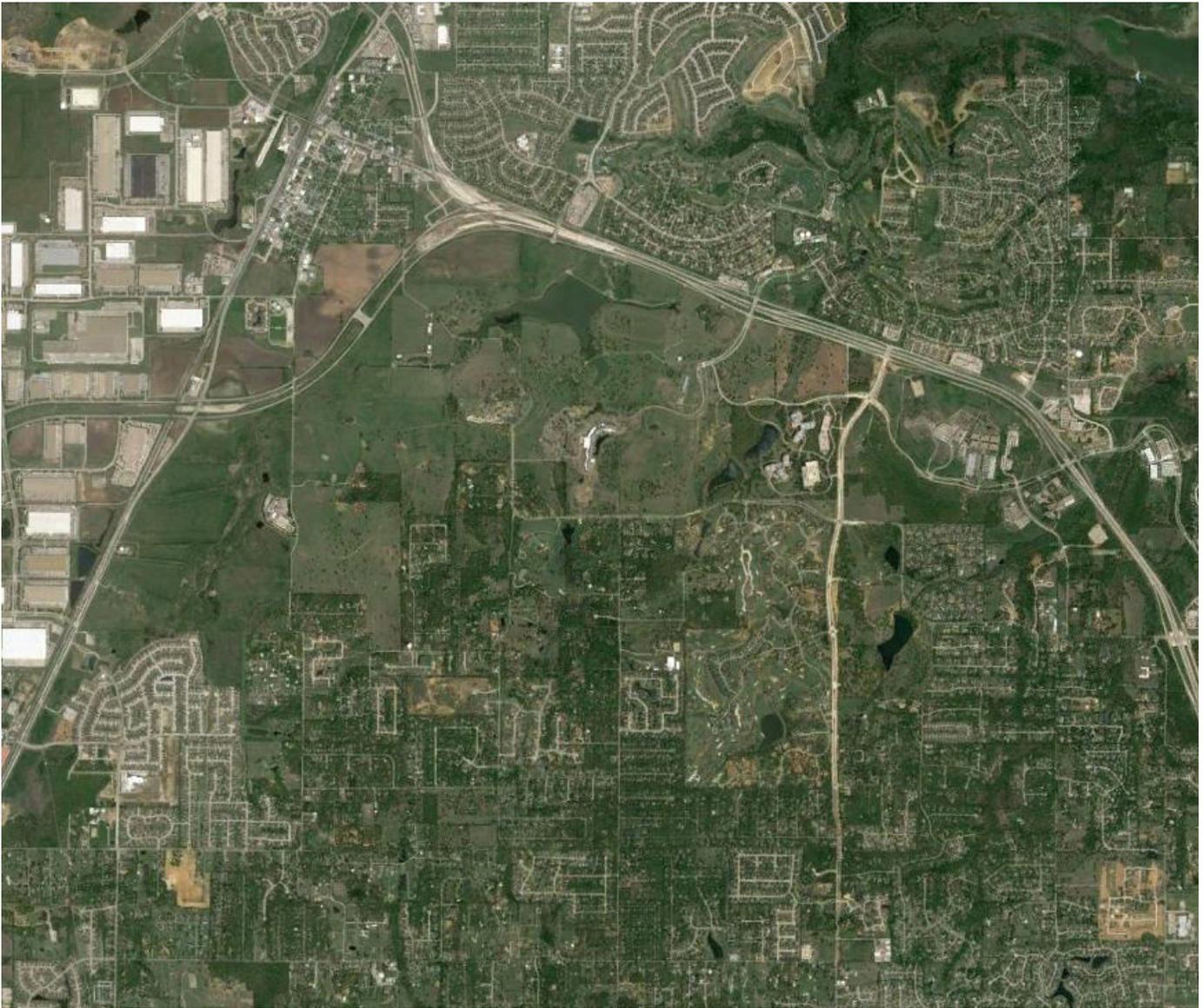


Figure 41: 2013 Historic Aerial

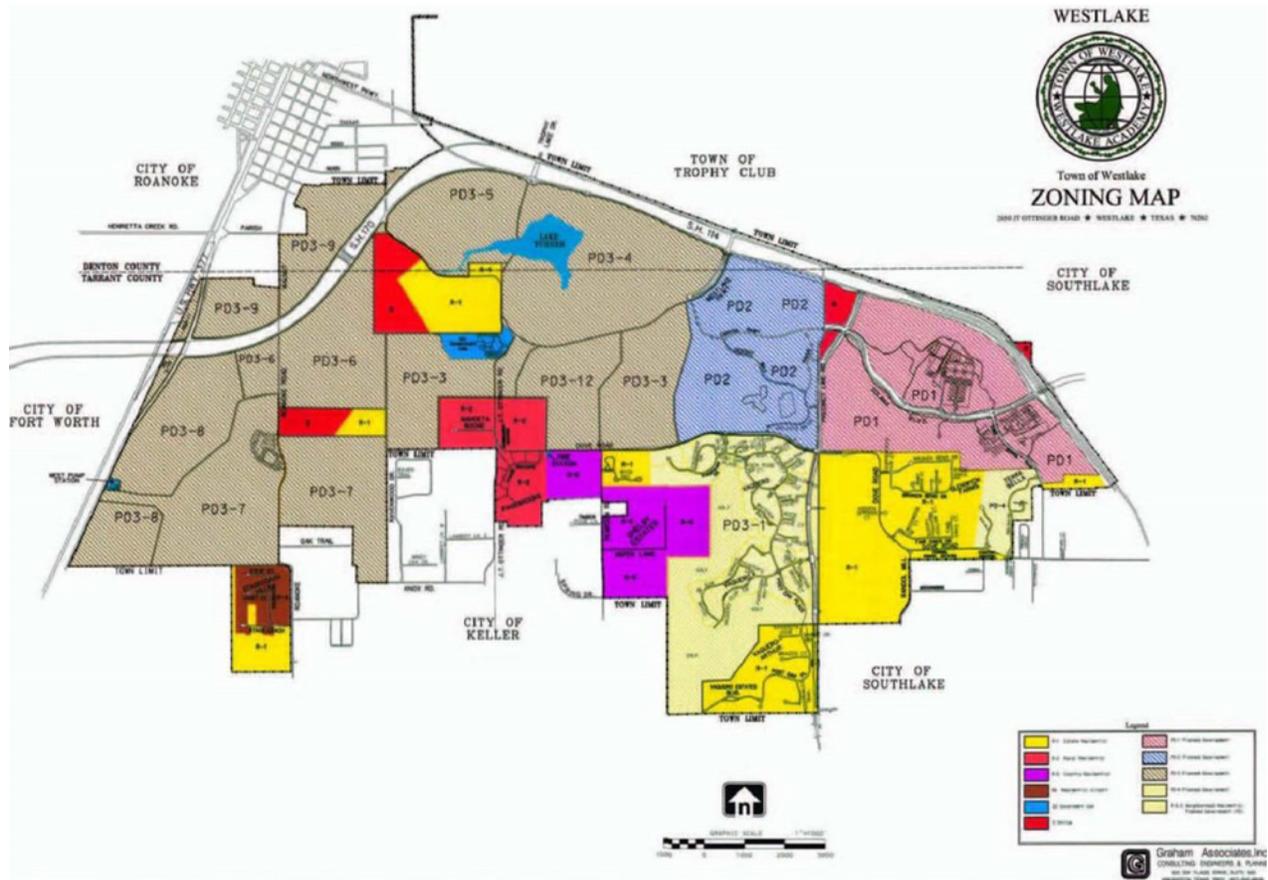


Figure 42: Current Zoning Map

**Analysis of Zoning and Planned Development Entitlements and Their Relationship to the Present Condition:**

Westlake's most recent Zoning Map, seen in Figure 42, shows the location and zoning of each parcel within Town limits. Zoning is a police power put in place to restrict the uses allowed, height and density of individual parcels in order to protect public health, safety and welfare. Figure 42 reveals the most current zoning allocations, whether it be straight zoning for residential, office, industrial, etc. or Planned Development (PD). A Planned Development is a special zoning category that typically allows a mix of uses and design standards beyond straight zoning categories. Planned Developments, like all other zoning, must be allotted through the Town's approval process. Entitlements already in place via approved Planned Developments can be summarized in the

following assessment. Figure 43 summarizes land areas by land use and the magnitude of development rights (expressed as square feet or units) conveyed by categorical zoning and Planned Development Ordinances. This is an important summation to see, as it suggests the internal and external pressures that Westlake must be positioned to address at some point in its near future.

Figure 43 reveals the potential of a substantially different Town than what exists today. The resident population capacity at 2,046 single-family units and 330 multi-family units is 6,846 (assuming a 90% occupancy in the multifamily and 2.1 persons per MF household and 93% occupancy in single-family and 3.28 persons per SF household). As discussed in the earlier population analysis, this number represents the population capacity as established by current zoning,

	Building Area (Sq. Ft.)	Units	Rooms
<b>Straight Zoning Areas</b>			
Office/Education	1,100,347		
Residential		639	
<b>PD-1 (Entrada &amp; Granada)</b>			
Hotel	150,000		250
Retail	349,483		
Office/Education	1,399,372		
Residential		207	
<b>PD-2</b>			
Office	5,217,752		
<b>PD-3</b>			
Hotel	1,970,000		3283
Retail	1,147,885		
Office/Education	6,996,881		
Residential		1,502	
<b>PD-4 (Terra Bella)</b>			
Residential		28	

Totals	Building Area (Sq. Ft.)	Units	Rooms
Residential (SF)		2,046	
Residential (MF)		330	
Total Residential		2,376	
Hotel	2,120,000		3,533
Office/ Industrial/ Educational	13,314,980		
Retail (Inc. Mall)	3,127,368		
Total Commercial	18,562,348		

Figure 43: Unit and Area Breakdown

which the Town of Westlake, growing at 7.21% annually, will come up against by approximately 2036. While this is still a relatively small population residing in low residential density, the magnitude of commercial square footage presents a dramatic contrast. The chart above reveals total permitted rights of 18.5

million square feet of non-residential development (hotel use at 3,533 rooms, office/industrial/educational at 13,314,980 square feet and retail at 3,127,368 square feet). This suggests a significant urban center. This much square footage on 1,091 acres is more than half of the square footage in downtown Dallas (30 million

WESTLAKE POPULATION SETTINGS				
City	Average Rate	2012 population	2025 population	2040 population
The Four Surrounding Cities	3.35%	85,745	131,643	215,801
Westlake Upstream Region 114 (12 Cities)	4.34%	67,208	116,758	220,826
Regions Accessing 114, through Westlake	1.85%	131,190	166,492	219,184
15 min. Retail and Commuter Drive Zone	3.82%	103,448	168,421	295,521

Figure 44: Population Settings

square feet). However, downtown Dallas has a permitted FAR of 20:1 while Westlake has an average permitted FAR of .45:1. Therefore, the .45:1 could yield a greater street level density. Properly designed, such density could create a truly unique urban street space. However, the greater challenge is to reconcile the urban density of commercial entitlement with the pastoral scale and density of single-family development. The open space element of the Future Land Use Plan must be porous to north/south movement so that it does not become a barrier; it must be more than a northern growth boundary for residential use.

In addition to density, future non-residential development will bring significant non-resident populations to the Town. Large malls across the United States such as Woodfield Mall (Shamburg, IL) and the Houston Galleria attract approximately .04 people per square foot per day (source: Travel and Leisure). Therefore, 3,127,368 sf. of retail will attract approximately 125,000 shoppers per day. In addition, the 13,314,980 square feet of office/office-

industrial/educational uses (if 85% leased) will house an employee population of 37,726 people. Finally, 1,300 hotel rooms at 60% occupancy (the State of Texas average) will host 1,462 people considering percentage of triple and double occupancy (source: Room Division Basic Theories by Eugene Win) and require 910 employees. Therefore, the total temporary non-resident population per day could be as high as approximately 165,000 people per day. This is more than half of the resident population of Westlake, Keller, Southlake, Trophy Club, and Roanoke combined.

The intensity of Westlake's commercial area makes it an urban center to the surrounding populations. Figure 44 above illustrates the level of population concentration.

Note that the largest population concentration is within the 15 minute drive-time window (295,521). This is about the population of Corpus Christi, Texas, and, as discussed in the population analysis section, the 15-minute drive time window

	Land Area (AC)	Land Area (Sq. Ft.)	Land Area (%)
<b>Total Land Area (Entitlements)</b>	<b>4,288.00</b>	<b>186,785,280.00</b>	<b>100%</b>
Residential	2,234.23	97,323,030.80	52%
Commercial	1,091.27	47,535,875.90	25%
Public/Non-Taxable	37.48	1,632,664.00	1%
Open Space	911.38	39,699,505.00	21%

Figure 45: Westlake Land Uses

office workforce population (140,000 people) could easily fill the office space offerings of Westlake. Also, a general rule of thumb is that a population of about 250,000 is required to support the magnitude of retail generally associated with a mall.

The notion of Westlake as a commercial center, serving a tributary population of over 200,000 people is dramatically different from the pastoral identity that currently prevails and is perhaps the greatest planning challenge going forward. Traffic, density/scale, urbanization, and east/west orientation of development will have to co-exist with rural roadways, pastoral landscapes, low-density housing, and south/north orientation of community.

Of particular importance to understanding the future of Westlake is the relationship to Westlake's commercial land supply to the land supply available in the general market. Figure 45 above summarized how the land area of Westlake and surrounding communities breaks down in terms of Land Use and the percent of total land area represented by each use.

Figure 45 clearly shows that while the amount of non-residential square footage is high, the percent of total land area devoted to commercial use is relatively typical at 25% (a figure consistent with the commercial distribution in many Texas cities).

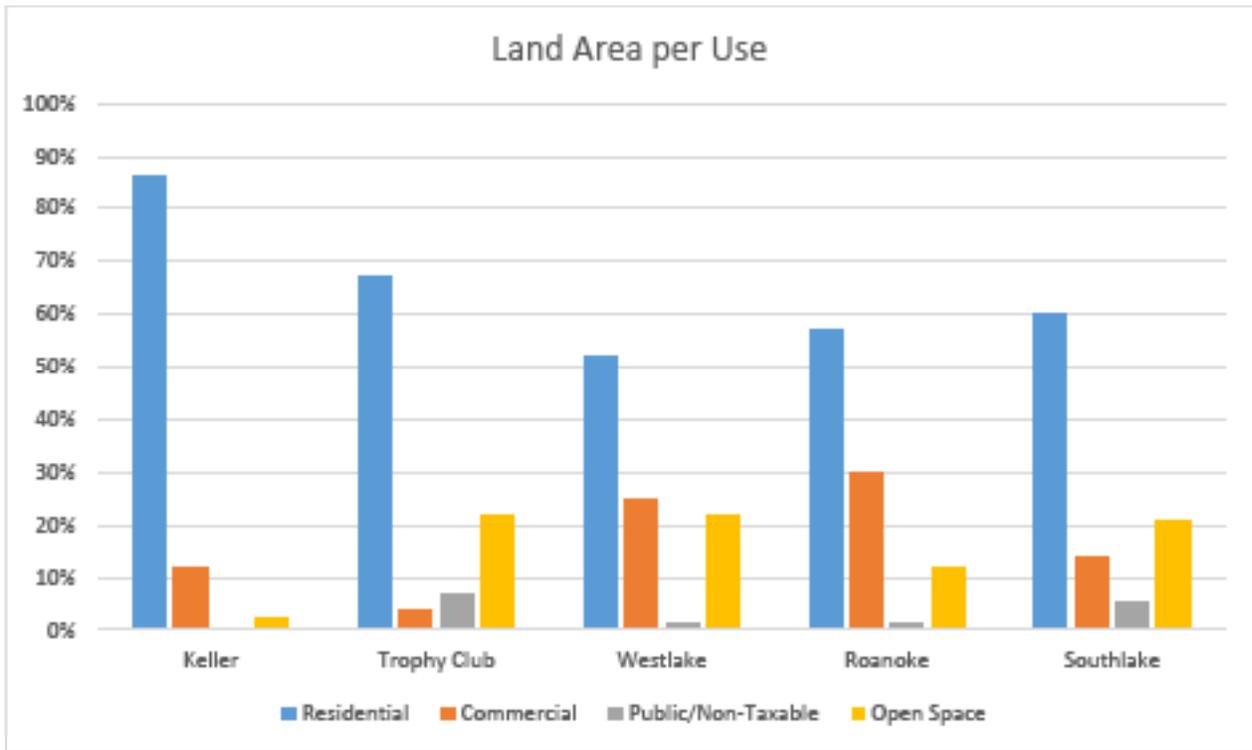


Figure 46: Surrounding Land Areas Graph

Figure 46 above shows how Westlake's land areas compare to the distribution in neighboring cities:

1. Total commercial is only 4% of the Trophy Club Land Supply.
2. Total commercial is 30% of the Roanoke Land Supply.
3. Total commercial is 12% of the Keller Land Supply.
4. Total commercial is 14% of the Southlake Land Supply.

In this comparison, Westlake's distribution of 52% residential and 25% commercial is similar to Roanoke (about the same land area as Westlake) at 30% commercial and 57% residential/agriculture (agriculture is likely to go to residential use), and Southlake at 60% residential and 14% commercial. However, both Keller and Trophy Club are dominated by

residential use (86% and 67% residential use respectively with Trophy Club's large amount of land area set aside for open space at 22%), with small allocation to commercial (12% and 4% respectively). At present, Southlake is approaching residential build-out and getting close to commercial build-out. As the commercial market comes close to absorption of available prime commercial space, that market will jump westward along the SH 114 corridor with Westlake being the next viable location (given the residential dominance in Trophy Club). Also note that Southlake has a commercial land area almost twice the size of Westlake that represents only half the percentage of total land area within the City. This allows the residential fabric of Southlake to have greater presence in the face of commercial square footage that will likely exceed 14,000,000 sf. at build-out.

With commercial land availability beyond Southlake limited in Keller and Trophy Club,

Westlake can expect to be the target of commercial growth. In addition, with the exhaustion of residential land supply for upper price point custom builders in both Colleyville and Southlake, Westlake will likely see pressures to host housing development at price points below the \$1million+ price point that currently dominates.

In this analysis of entitlement and land area, it is clear that Westlake is truly unique in its dominance of the \$1million+ home market and the magnitude of non-residential square footage compared to neighboring cities. The former reinforces the notion of a unique township while the latter reinforces the notion of economic integration. Economic patterns are not sensitive to political boundaries as the economic organ is defined by transaction and the political organ is defined by legal standing. Comprehensive plans are typically responsive to the political organ, taking into account only a spatial slice of the economic picture that falls within political boundaries. However, such a view may not be in the best interest of Westlake as its commercial scale makes Westlake a commercial center for an economic envelope covering several neighboring communities. The regional-centric view brings important issues into focus that the Town-centric view does not. These issues include:

- External traffic flows,
- Externally generated demand on internal facilities and resources, and
- Relationship of town to region WITHIN Westlake.

With regard to the last point, Westlake is set up to accomplish this reconciliation of town and region with the open space amenity, which is both the northern limit of residential growth and generally the southern boundary of commercial use.

## **The Tax Revenue Implications of Future Development:**

The following analysis investigates the ad valorem performance of Westlake today and Westlake at build-out. The importance of such investigation is to determine how present and future development positions the Town to build the public domain necessary to manage growth. At the start, there are several terms that should be defined as follows:

- **Ad Valorem Revenue:** Every city and town must have sufficient ad valorem (residential and commercial) revenue to fund debt supported by the full faith and credit of the municipality. Where such assurance is committed, such as general obligation bonds, the persons to whom the assurance is given has the expectation that the municipality would increase taxes, if ultimately necessary, to meet the debt obligation. This is only possible with property taxes as sales taxes are capped by state law and often already committed to such things as economic development.
- **General Fund:** This is the city budget for operations of city departments and facilities. The general fund typically provides for services and programs and is, therefore, a good measure of the level of support for a particular quality of life level. The Planning Team maintains that a typical Texas municipality should be able to support 60% to 65% of its general fund through ad valorem revenue, as such levels of ad valorem income allows the municipality the option to substitute other revenue for general fund purposes and divert ad valorem revenue to support debt.
- **Residential Ad Valorem Revenue:** This is the town revenue derived from taxes on the value of residential property. The taxable value of property is set by the

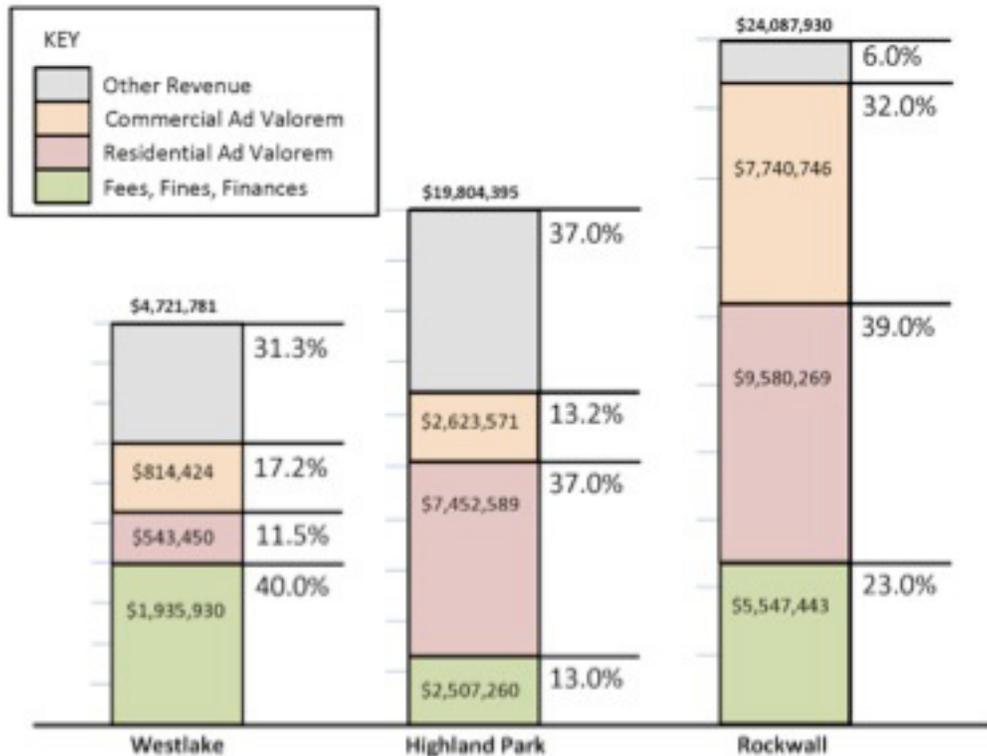


Figure 47: Ad Valorem of three Cities/Towns

county appraisal district. In Westlake, this tax equals \$0.15684 per \$100 dollars of taxable value.

- Commercial Ad Valorem Revenue:** This is the town revenue derived from taxes on the value of non-residential property. The taxable value of property is set by the county appraisal district. In Westlake, this tax equals \$0.15684 per \$100 dollars of taxable value.
- Fees, Fines, and Finances (3 F's):** This is the town revenue derived from the fines leveled by municipal court and other enforcement, the fees derived from permits/ applications/ other administrative services and the finances that include investment income/ interest.
- Locally Supported Commercial:** Typically the residential ad valorem revenue of a city falls short of the general fund needs of a municipality because on average every \$1.00 of ad valorem revenue flowing from

residential land use incurs \$1.33 of service costs. Therefore, commercial (non-residential) land uses (costing \$0.33 for every \$1.00 of revenue) become necessary to close the "tax gap" between what residential costs (in terms of services) and the ad valorem revenue it generates. However, a local population typically is not large enough to support the scale of retail necessary to close this gap; meaning that regional patronage (imported spending) becomes critically important to most Texas municipalities. The amount of non-residential development that is locally supported is called "Locally Supported Commercial".

- Regional Dependence:** The commercial ad valorem base needed to close the above described tax gap that is not supported by the local population but rather supported by people living outside the municipality and shopping and working within the municipal limits.

Figure 47 compares three cities, Westlake, Highland Park and Rockwall, in terms of their ad valorem contributions to their general funds. Highland Park demonstrates a current population of 8,600 people and average home value of \$1,400,000.00, while Westlake at build-out population is right at 6,800 people and the average home value at present is \$1,100,000. Rockwall can be viewed as a city with impressive demographics that generally conforms to State of Texas averages in terms of ad valorem performance relative to the general fund. The vertical bar above each city/town name represents the general fund as approved for fiscal year 2013-2014. Each vertical bar is divided into four color segments, scaled to reflect the percent of total general fund requirement that can be supported by current levels of revenue from Fees/Fines/Finances, Residential Ad Valorem, Commercial Ad Valorem, and other revenues.

Considering Figure 47, there are several key comparisons that reveal where Westlake is today, which sets up the analysis of Westlake at build-out:

- **Westlake:** The vertical bar indicates that the 2014 general fund is \$4,721,781, which equates to a per capita cost of services and governance (the general fund) of \$4,584.00 per capita. This is significantly higher than the State of Texas norms, which set a per capita cost of services and governance at \$600.00. However, investigation of the revenues flowing into the general fund reveal that Westlake enjoys significant income flows from non-tax sources, making the per capita burden not as burdensome as the figures suggest. Note in Figure 47 that the contribution to total general fund coming from Fees/Fines/Finances is right at 40%. This is higher than most Texas municipalities, which vary between

12% and 20%. Therefore, the 3F's and "Other Revenues" constitute 71.3% of the total General Fund Obligation. With Westlake's current ad valorem tax rate being lower than most Texas cities (Westlake rate = .15684), it becomes necessary to serve the general fund with other revenue sources.

Typically the cost of services to residential land use and the ad valorem revenue derived from residential land use (taxed at typical rates) do not balance out until the taxable value of the residential property rises above \$350,000.00. Certainly Westlake has residential values well above the \$350,000 threshold. However, the low tax rate pushes this threshold higher. At current tax rates, a \$1,100,000.00 house in Westlake yields the same revenue as a \$286,000.00 residence taxed at a rate of .60 (a rate common to many Metroplex cities). The beneficial rate enjoyed by the citizens of Westlake makes it necessary to rely on significant commercial contribution to ad valorem revenues. Note that the commercial contribution is approximately 17.2% (\$814,424) of the General Fund Obligation. Therefore, the residential ad valorem contribution overall is 28.7% of the General Fund Obligation. This is below the state norm of 55% to 65%. This will change as the levels of commercial development within the Town rise. Perhaps greater commercial intensity is necessary to keep ad valorem rates at the present low level. Westlake already imports demand to fill the roughly 2,200,000 sf. of office and commercial space within the Town, as commercial population required is approximately 7,300 people.

While the sum of contributions to the general fund flowing from the 3F's and ad valorem revenues support the

general fund at a level that compares favorably with Texas norms, the ad valorem portion of that contribution is unusually low. This necessitates greater dependence on other income sources and limits the Town's bonding ability, which may be necessary to build appropriate growth management infrastructure and amenities.

- **Highland Park:** With a current population of 8,600, Highland Park has established a general fund of \$19,804,395 for fiscal year 2013-2014. This equates to a per capita cost of services and governance equaling \$2,475.00. Note the 3F's portion of the vertical bar that contributes only 13% of the General Fund Obligation. This is more typical of Texas cities and likely reflects a more developed city. The residential ad valorem segment of the vertical bar contributes approximately 37% of the ad valorem obligation, which is also very typical of Texas cities. However, the commercial segment is relatively low (13.2%) yielding a total contribution to the General Fund Obligation of 50.2%, which is below Texas norms. Normally, a city would reach its regional retail to improve this number, but the close association of Dallas and University Park promotes commercial leakage from Highland Park, making the city more dependent on other income sources.

By contrast, Westlake will be a commercial center in its economic region, thereby enjoying a considerable amount of retail and commercial demand coming from outside its corporate limits.

At 8,600 people, Highland Park becomes a precursor of Westlake at build-out. As such, it suggests

that the current cost of services and governance per capita (presently \$4,584.00) could settle out at \$2,475.00. Note that the per capita general fund cost for Highland Park is less than that of Westlake while its population is higher, and the general fund cost for Rockwall is less than Highland Park with a higher population. This suggests that as the population increases, the per capita cost of services and governance goes down, provided that the city is performing to normative ad valorem standards. Therefore, the future cost of services and governance for Westlake at build-out could be \$16,941,375.00, which is significantly higher than today.

- **Rockwall:** Rockwall's current population is 39,322 people, and the per capita cost of services and governance is \$612.00 (conforming to Texas norms). The segmentation of the general fund vertical bar reflects an economically vibrant community. Note that the residential and non-residential contributions to the general fund obligation totals 71%, which is actually higher than most cities and suggests that Rockwall is better positioned for debt. In addition, the 3F's contribution to the General Fund Obligation (23%) is slightly higher than Texas norms (12% to 20%), suggesting that there is considerable permitting and other growth management activities taking place. Note that the 3F's contribution of Westlake, Highland Park, and Rockwall is relatively close in magnitude despite vast differences in population. For example, Highland Park has a population that is 754% larger than Westlake but its 3F revenues are only 29% greater. The same is true for Rockwall. Therefore, it is likely that the future 3F contribution in Westlake will represent a smaller percentage of total

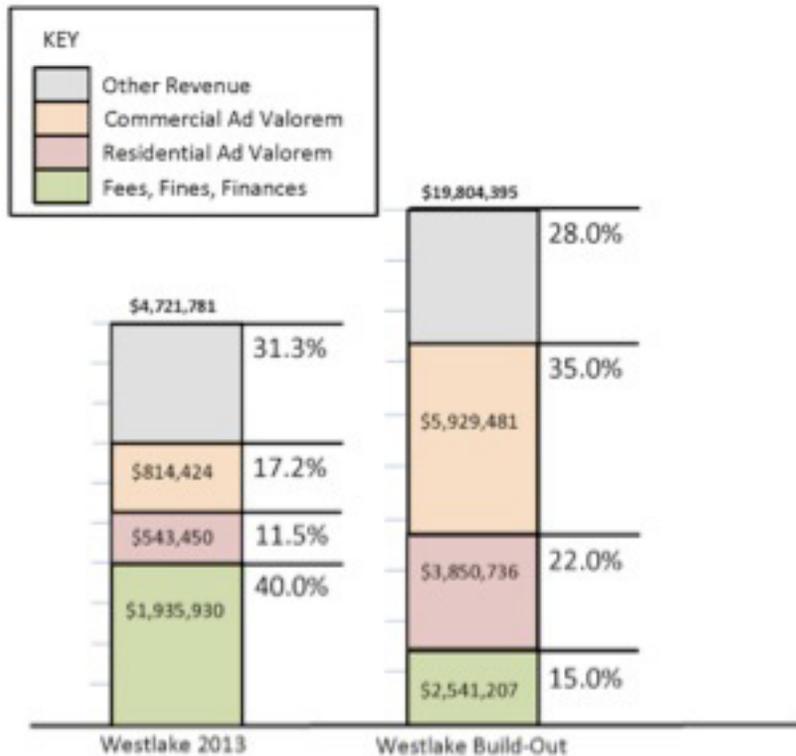


Figure 48: Westlake Ad Valorem Build-Out

contribution. Assuming that Westlake performs slightly higher than Highland Park because of its commercial dominance, the 3F contribution could be \$2,541,207 (15%).

Figure 48 projects Westlake's ad valorem performance at build-out and the picture looks much more balanced. Note that the total General Fund Obligation is \$19,804,395, which equates to a per capita cost of \$2,900.00 (very much like Highland Park today). Also, note that the 3F contribution to that obligation is only 15%, reflecting the dynamic that this number decreases as a proportion of total as population increases (discussed previously). The residential ad valorem contribution is \$3,850,736.00 (22%) and

the commercial ad valorem contribution is \$5,929,481 (35%). This means that the combined 3F and ad valorem contributions are 72%, which is right in the middle of the range recommended by the Planning Team.

The distribution illustrated in Figure 48 in combination with the earlier charts explaining the magnitude of square footage represented by non-residential entitlements illustrates the extent to which low rate assessment on ad valorem value necessitates commercial square footage to close the tax gap. If ad valorem rates were ever to rise, then the amount of commercial presence in Westlake would not be so important to the overall ad valorem picture.

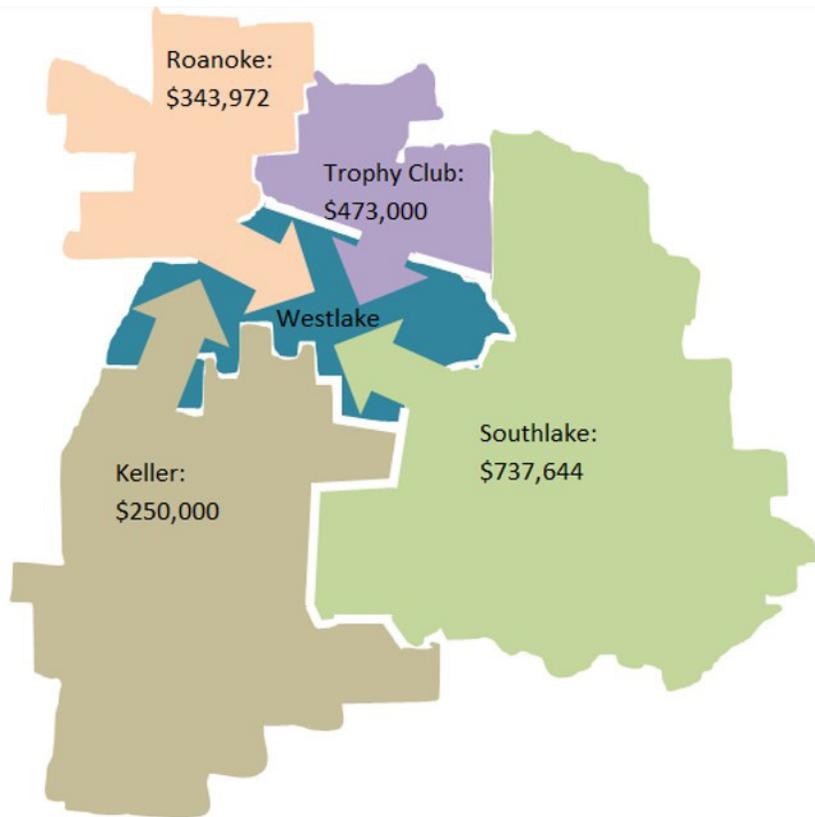


Figure 49: Home Value Diversification

### Home Value Diversification of Abutting Home Markets

Figure 49 illustrates the mean home sale values in the four cities surrounding Westlake. As Westlake approaches build-out, the influence of community adjacency on home values may increase, precipitating fragmentation of Westlake's currently homogeneous housing market (\$1 million+ price point). The diagram shows that Southlake (with home sales ranging from \$529,990 to \$1,084,990) reinforces home values in Westlake's southerly and easterly portions (most adjacent to Southlake). However, as land to the south and west begins to fill out with residential development, it is likely that Keller, Roanoke, and Trophy Club will set value references for these portions of the Town. Despite such influences, Westlake will always be significantly higher than neighboring markets, but the \$1 million + price point could move to the \$500,000-

\$800,000 range.

The emergence of other price points in Westlake is also supported by the fast diminishing residential land supply in Southlake and Colleyville. Once lot availability is gone in these markets, custom builders will seek other locations attractive to their market segment. The easiest choice for expansion of such markets is Westlake. At a price point of \$800,000, land prices could approach \$200,000 for the smaller lots allowed under existing entitlement (15,340 sq. ft.). If such lots can be sold for \$200,000, then the price per square foot is \$13.00. Land at these prices is competitive with small office land values.

Among the various product markets that Westlake will serve (residential, retail, hospitality, and office), office is the most frequently overbuilt and fluctuating. In addition, office faces the greatest area competition. Therefore, it is highly possible

**NEW HOME COMMUNITIES  
WESTLAKE, TEXAS AND SURROUNDING AREAS  
NOVEMBER 2013**

COMMUNITY	BUILDER	LOT FRONTAGE	SIZE RANGE (SF)		PRICE RANGE		PRICE PER SQFT.	
			MIN	MAX	MIN	MAX	MIN	MAX
<b>SOUTHLAKE</b>								
Estancia	Ashton Woods Homes	85'-95'	3,008 - 5,244		\$529,990 - \$695,572		\$133 - \$231	
Carillon	K. Hovnanian Homes	85'-95'	2,886 - 3,794		\$553,900 - \$685,900		\$181 - \$238	
Shady Oaks	Toll Brothers	100'	3,888 - 5,640		\$723,995 - \$808,995		\$143 - \$208	
Carillon - The Estates	K. Hovnanian Homes	100'	4,295 - 5,263		\$799,000 - \$871,900		\$166 - \$203	
Shady Oaks	Standard Pacific Homes	105'	4,506 - 6,335		\$879,990 - \$970,990		\$153 - \$215	
Winding Creek	Standard Pacific Homes	105'	4,143 - 6,335		\$938,990 - \$1,084,990		\$171 - \$262	
<b>TOTAL/AVERAGE</b>			<b>2,886 - 6,335</b>		<b>\$529,990 - \$1,084,990</b>		<b>\$133 - \$262</b>	
<b>TROPHY CLUB</b>								
Highlands at Trophy Club	Lennar	70'-90'	2,070 - 4,341		\$304,990 - \$488,990		\$113 - \$236	
Turnberry at Trophy Club	Standard Pacific Homes	75'	2,801 - 5,193		\$422,990 - \$531,990		\$102 - \$190	
Hogan's Glen	Ashton Woods Homes	80'	3,008 - 5,244		\$480,990 - \$612,990		\$117 - \$204	
<b>TOTAL/AVERAGE</b>			<b>2,070 - 5,244</b>		<b>\$304,990 - \$612,990</b>		<b>\$102 - \$236</b>	
<b>ROANOKE</b>								
Bluffview of Roanoke	Ashton Woods Homes	55'	1,569 - 2,926		\$216,990 - \$288,990		\$99 - \$184	
Chadwick Farms	Grand Homes	55'	1,894 - 4,182		\$247,900 - \$331,900		\$79 - \$175	
Briarwyck - The Reserve	Meritage Homes	62'-72'	3,153 - 4,316		\$311,990 - \$362,990		\$84 - \$115	
Fairway Ranch	Highland Homes	70'	2,200 - 3,726		\$335,990 - \$467,990		\$126 - \$213	
Fairway Ranch	Darling Homes	75'	2,882 - 3,658		\$417,990 - \$456,990		\$125 - \$159	
<b>TOTAL/AVERAGE</b>			<b>1,569 - 4,316</b>		<b>\$216,990 - \$467,990</b>		<b>\$79 - \$213</b>	

SOURCE: RCLCO; NewHomeSource.com

Figure 50: New Home Communities

that office zoned land further from the SH 114 frontage (south of the open space area) could be considered for residential rezoning and that the price points in these rezoned areas would be lower than \$1 million +.

Figure 50, prepared by RCLCO, summarizes values in neighboring cities.

In conclusion, it appears that Westlake can maintain its low rates as long as it has significant commercial development within the Town, as reflected by the magnitude of commercial entitlement. However, the presence of such commercial development dramatically redirects the historic grain and orientation of the Town, establishing a commercial center for an economic region. Reconciliation of the two Westlake characters and maintenance of the current low ad valorem rates will require a design-based vision of how the patterns are reconciled in a natural matrix that is responsive to both the Town's history and its future.

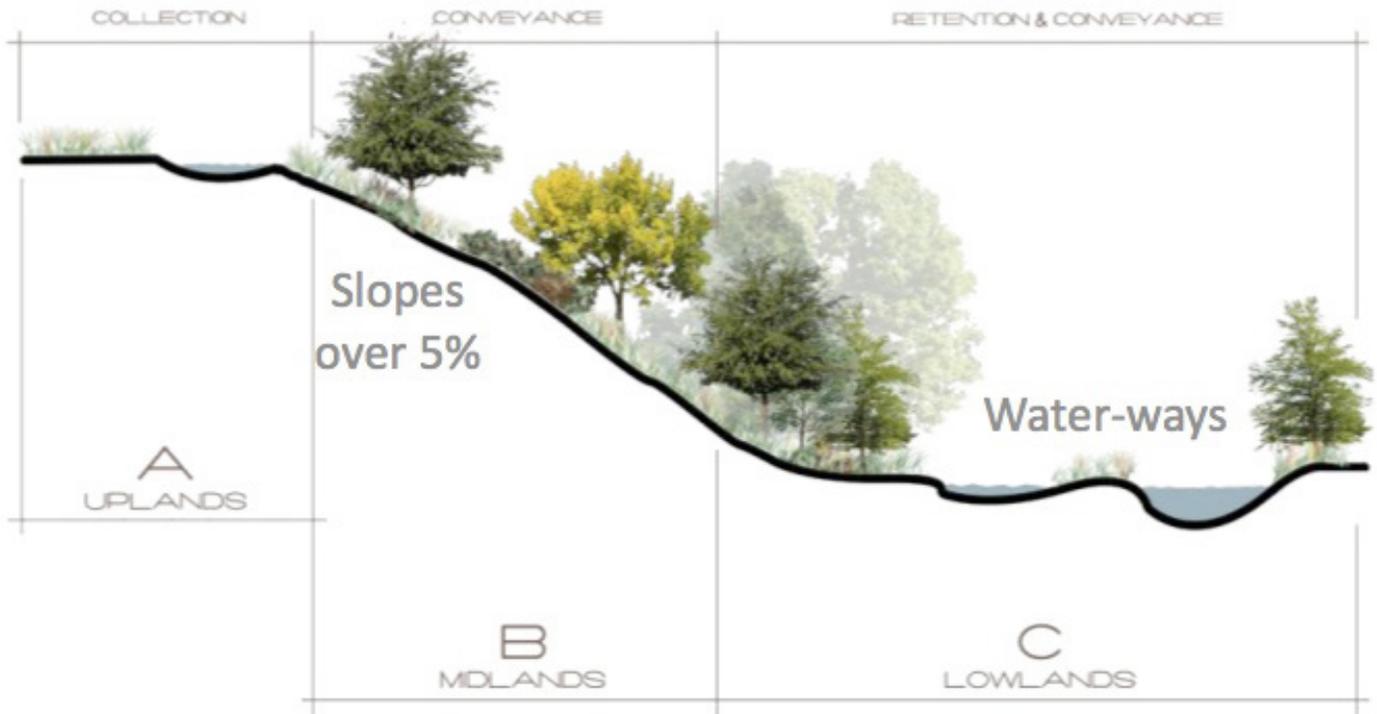


Figure 51: Land Transect

### 3. DEVELOPMENT SUITABILITY ASSESSMENT

#### DEVELOPMENT SUITABILITY ANALYSIS: Part One

Westlake is host to a dramatically pastoral landscape that has evolved through a process of ranch management within a rolling topography blessed with acidic/sandy soils. The earlier existing conditions analysis chronicled the history of Westlake's transformation to the current pastoral setting. The following analysis seeks to create taxonomy of development conditions, as defined by

land characteristics, ranging from the most suitable for development to the least suitable for development.

Land characteristics are generally determined according to location within the land transect illustrated in Figure 51.

This analysis is based on five conditions, all of which have bearing on determination of where locations of greater natural encumbrance are located. These conditions are:

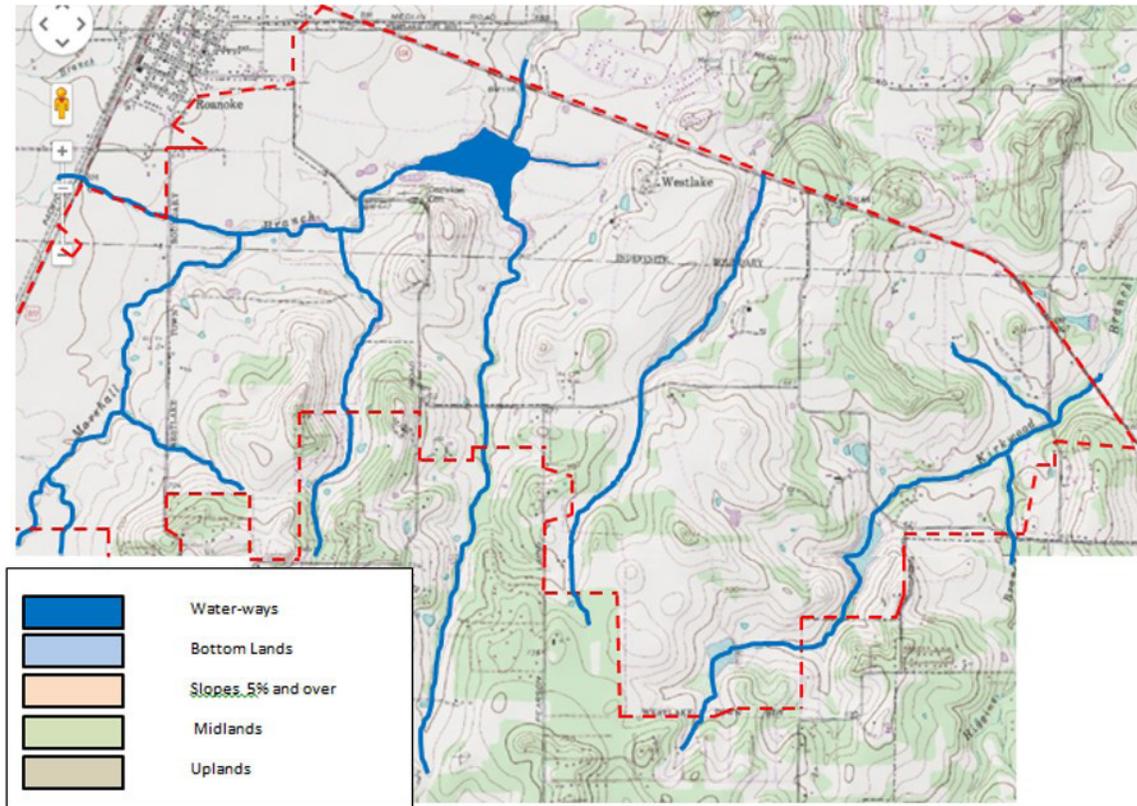


Figure 52: Waterways

**1. Waterways:** There are five primary water-ways within the Town of Westlake, running in a northerly direction, functioning as tributaries to Lake Grapevine. These waterways divide the Town into five zones aligned in a north to south direction and drain into the flanking channels. Each zone will ultimately contain both commercial and residential land uses. These five zones are cited as planning zones in the comprehensive plan process. Historically, these waterways nurtured umbrageous riparian communities

that found appropriate habitat in the deeper, more hydrated soils. Additionally, some waterways have been developed for ranch lakes and detention ponds. These include Turner Lake, lakes near Fidelity Investments, and others. These waterways will continue to be extremely important to Westlake as it develops because they are essential to satisfaction of detention requirements associated with Planned Developments. Future detention within these water ways will be between 500 and 700 acre feet. The five primary waterways are illustrated in Figure 52.

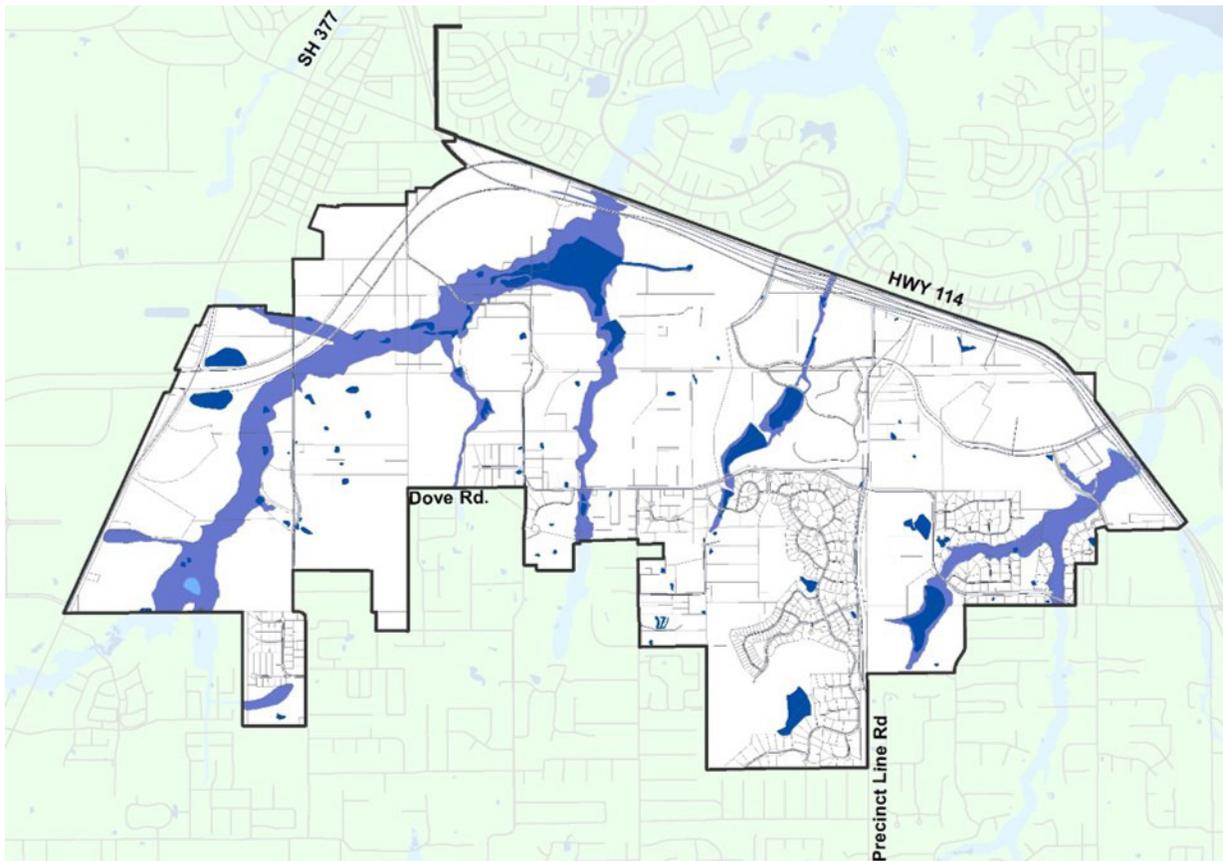


Figure 53: Flood Plain Map

**2. Lowlands:** Lowlands are generally the flood plain areas that flank the waterways and additional land area that generally contains the alluvial soils associated with flood plains. Because alluvial soils are transported and deposited by water flow, they lay in areas of flatter topography generally formed by the build-up of deposit over time and range from less than 1% to less than 3%. The structure of alluvial soils is generally more silty than other soil structures and, therefore, more susceptible to erosion. This makes the ground plane defined by those soil deposits sensitive to any acceleration of water flow. This includes outfalls and any point flow from constructed areas. Alluvial soils tend to be deeper, more hydrated, and more fertile than soils in higher elevations allowing such locations to support larger canopy trees, such as oak varieties. The

substantial canopy associated with these tree groups nurtures a diverse understory, making the alluvial areas also prime habitat for wildlife. Because the soils of Westlake tend to be sandy, alluvial soils, this area is more vulnerable to erosion and fast moving water (which can result from increased development of the magnitude established by current zoning), which can easily scour channel banks causing destruction of tree communities. Grapevine has experienced such water destruction in its industrial areas on the north side of Lake Grapevine.

- **Flood Plains:** Figure 53 shows existing ponds along the water-ways and the general width of flood prone areas. Note that flood plains along Marshall Creek (west side of Westlake) and Kirkwood (east side of Westlake) are the larger flood zones. Downstream development in Trophy

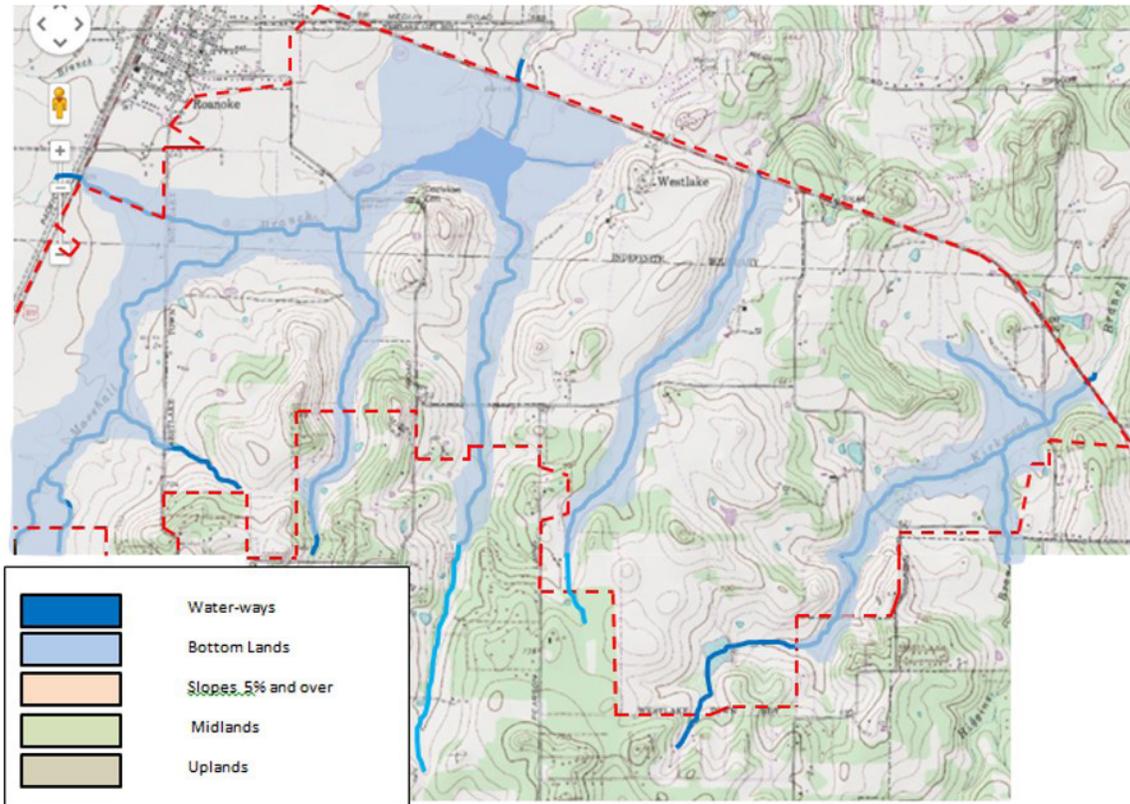


Figure 54: Lowlands

Club has restricted Westlake's ability to transport water from future development, making detention in these areas critical.

- **Lowlands:** Lowlands generally contain the flood plain areas of Figure 54 above as well as the areas of flatter alluvial land usually associated with alluvial soil deposits. Historically, these areas supported significant riparian growth. However, years of ranch management and pasture consolidation have made these the large flat grassy areas of today. The general configuration of Lowlands can be seen in Figure 54.

**3. Midlands:** The midlands are areas of moderate slope lying between the uplands (hill tops) and lowlands. The natural mosaic in these areas is not as diverse as one would find in the riparian zones of lowland areas. Vegetation

usually contains scrub and native grass growth common to edges of the riparian areas. Edges usually provide habitat for smaller animals and smaller plant materials that are a food source for many species, many of which live in the riparian corridors of the lowlands and move along such corridors well hidden from predators.

Midlands are the recipient of storm flows from upland areas moving across the midlands as they advance toward the lowland waterways. Because slopes of the midland areas are steeper than lowland or upland zones, water moves at a fast rate, thereby exposing the midlands to erosion. However, more stable soil structures and deep rooted grasses tend to provide erosion protection. Native grasses of midland areas are typically deep rooted, which allows water to seep into subsurface seams that then transport it to lowland

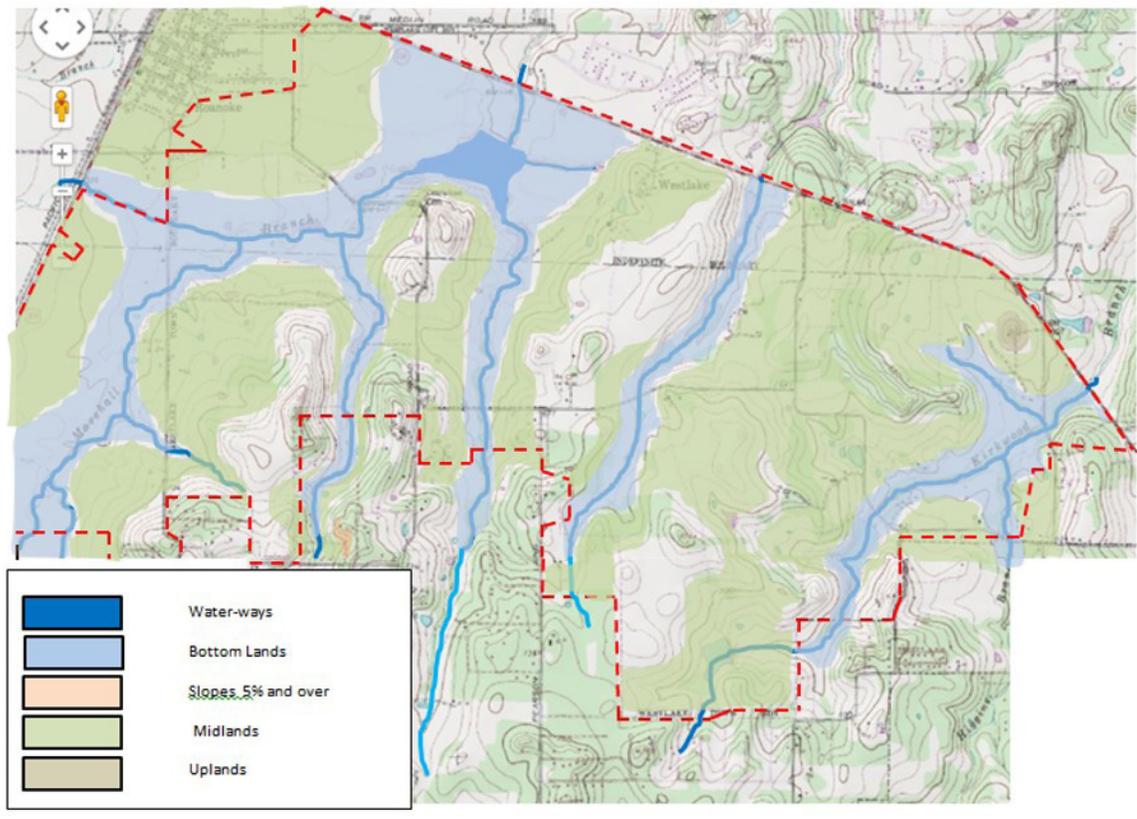


Figure 55: Midlands

waterways. However, years of ranch management has replaced native pasture with cultivated pasture, usually coastal Bermuda grass. Such cultivated pasture grass is not deep rooted like native grasses and encourages surface transport of storm runoff, leading to erosion. The USGS Topography map used as a base for this analysis shows intermediate ponds along the side slopes of the midlands, indicating erosion control and silt control structures.

The Midland areas, with their moderate slope, are generally stable areas for development as long as storm water management is addressed and point flows into the lowland areas are avoided. Figure 55 illustrates the Midlands.

**4. Slopes over 5%:** A key component of the pastoral beauty of Westlake is the number of rising land promontories supported by steeper slopes. There are areas where the slope exceeds 10%. These steeper slopes are sensitive to grading and expensive for development. The steep slope settings are the landmark land forms that give Westlake its distinctive character. Steep slopes are defined as slopes over 5%. Such slopes are indicated by the salmon colored areas in Figure 56. Most of these areas lie close to or along the southern border of town, as seen in Figure 57a and Figure 57b. This is in keeping with the flow of water from higher elevations toward Keller to lower elevations toward SH 114. Further, the steeper slopes are generally located on the northerly sides of promontories.

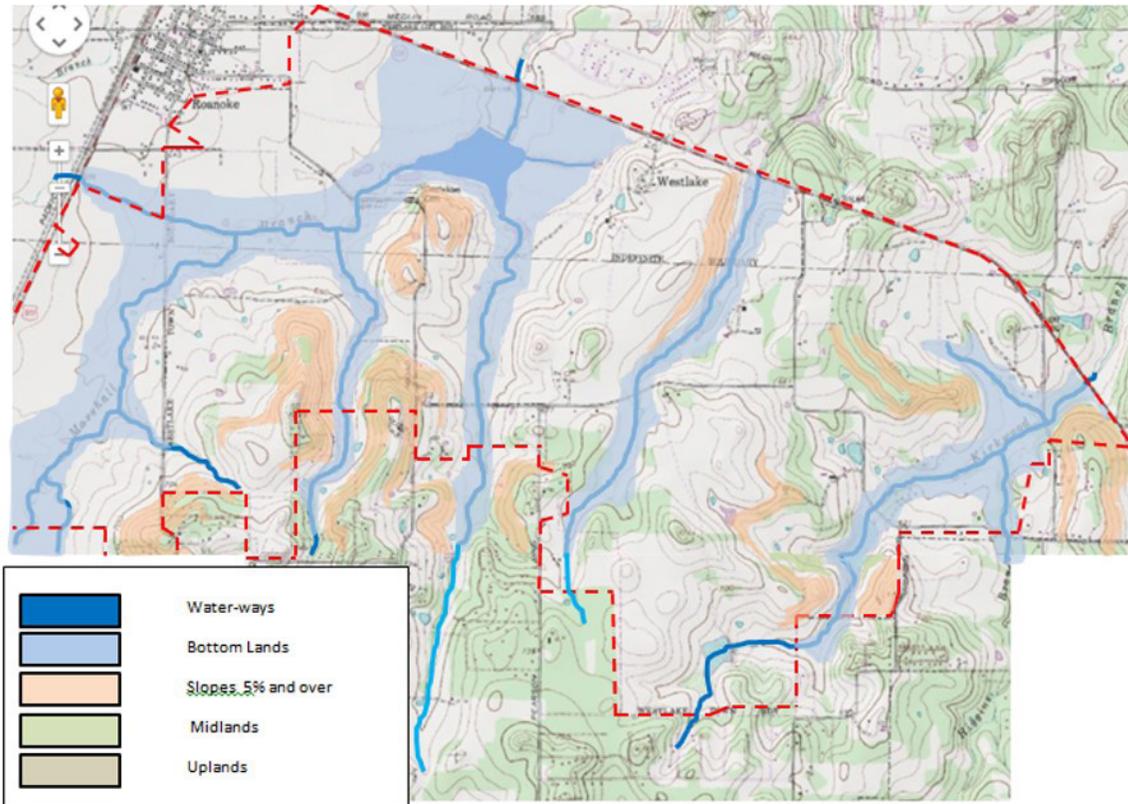
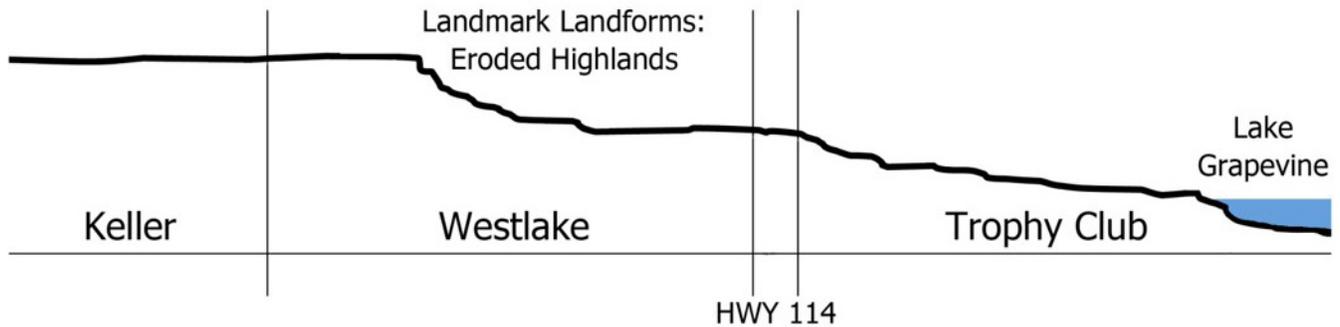


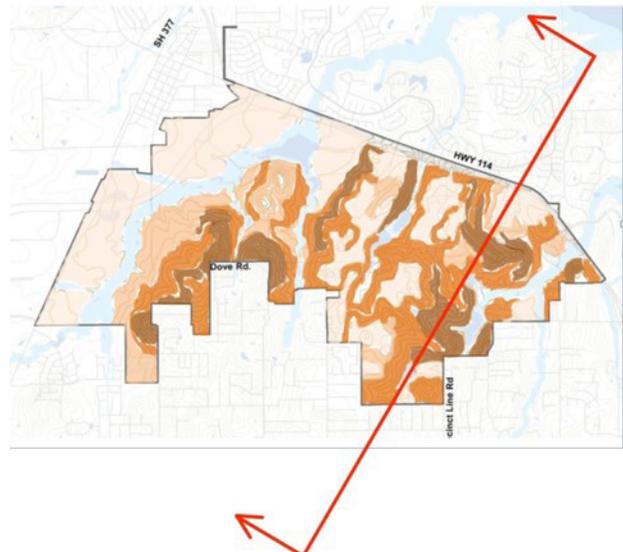
Figure 56: Slopes over 5%



Figures 57a and 57b: Cross Section and Topography with Cross Section Line

Therefore, when Westlake is viewed from SH 114 the landmark land forms are visible to the south. This is a distinctive quality of Westlake.

Steeper slopes will have thinner soils and a generally more fragile vegetative cover. Therefore, steep slope areas are sensitive to development.



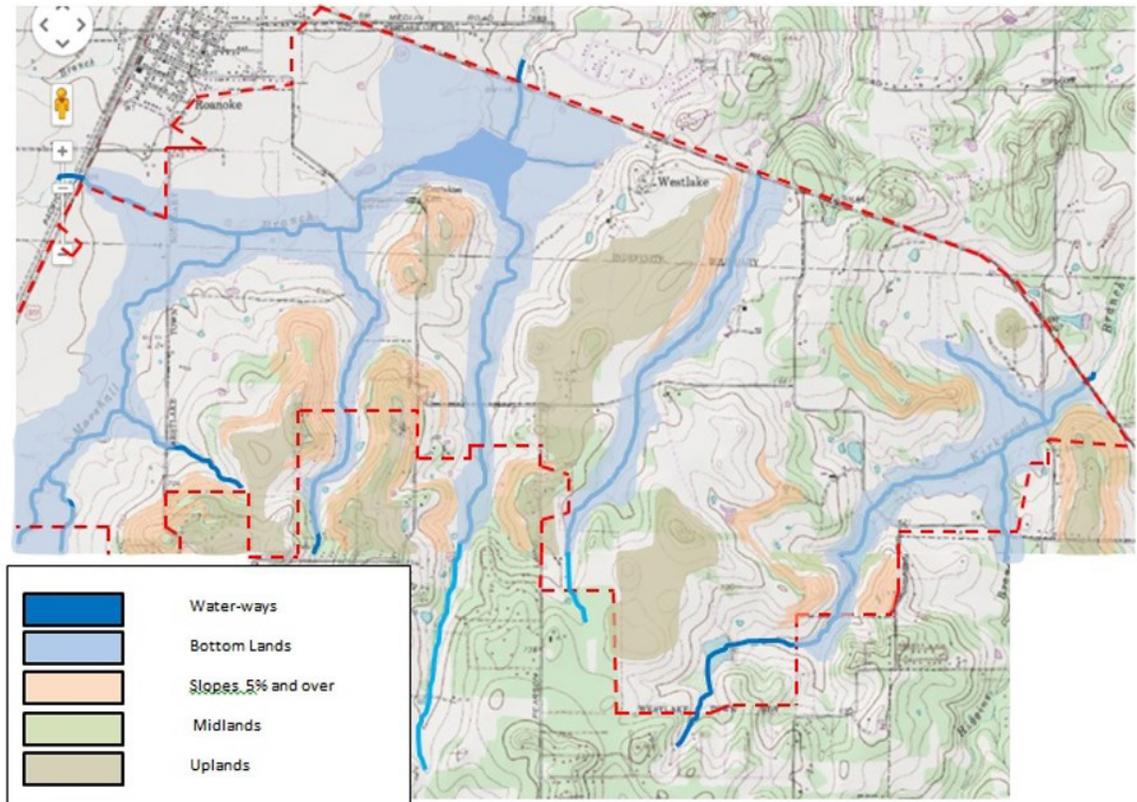


Figure 58: Uplands

**5. Uplands:** Uplands are the highest elevations of the Town and crown the landmark land forms discussed above. Typically void of tree cover, the thinner soils of hilltops support grasses. Uplands are flatter than midlands and less impacted by development. However, development in these areas will be the most visible. In an effort to preserve the natural form of hilltops, Westlake has historically encouraged vertical development to locate in lower elevations with its use of datum elevation as a regulatory control of building height. However, such policy also pushes development into the lowland areas, which can have adverse impact on the ecological function of these areas. Figure 58 shows the location of upland areas.

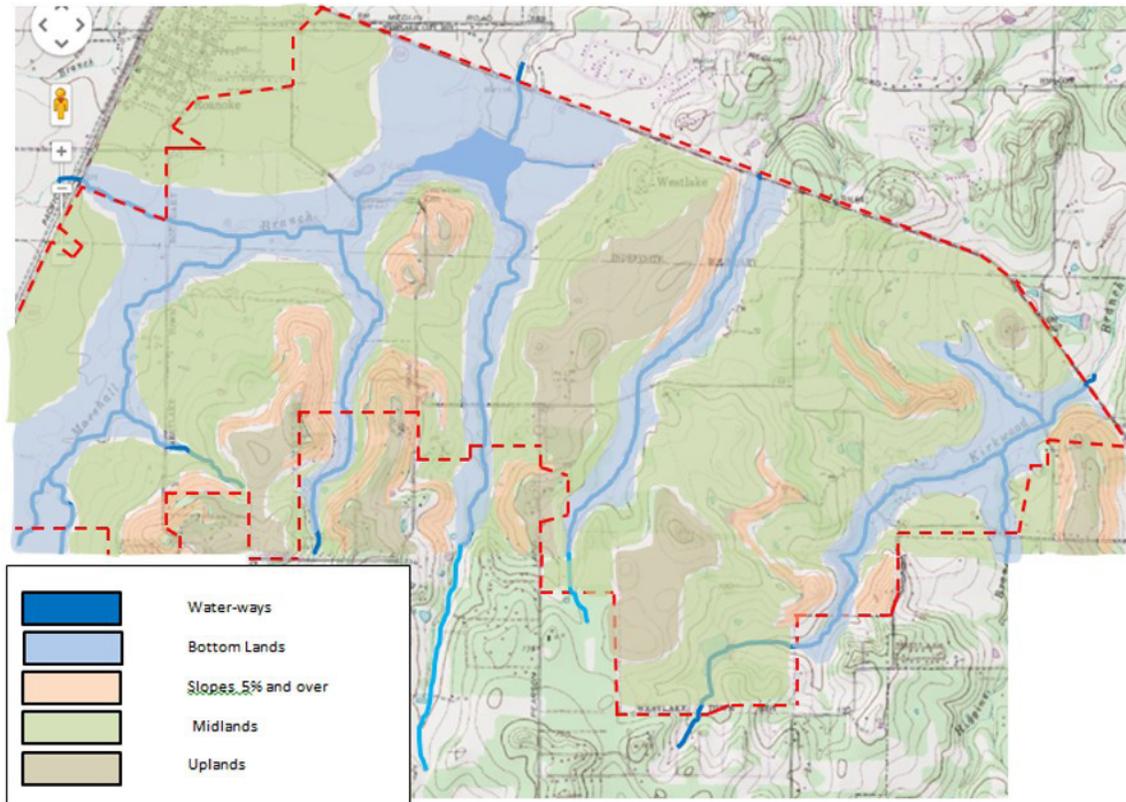


Figure 59: Composite Map

**The Composite Map:** Figure 59 is a composite of the individual map zones described above. It provides the key to application of the development suitability issues presented below.

**Suitability Summary by Zone:** The following text presents development suitability issues as such considerations are applicable to each of the zones presented above. Suitability is addressed through consideration of the disruption of natural processes, sensitivity to coverage, sensitivity to building height, and sensitivity to grading.

**1. Waterways: Waterways are highly sensitive to the impacts of development.**

- **Sensitivity to disruption of natural processes: Highly sensitive to the disruption of natural processes.** Figure 60 illustrates the complexity of natural processes in waterway areas. Because the waterway is the collection point of storm water

flows, all the natural processes that facilitate movement to water-ways culminate in this area and get progressively more complex and more diverse as they approach it. Therefore, natural processes in waterways are most sensitive to disruption by development. This includes the construction of detention facilities, which, by necessity, must be located in this area.

- **Sensitivity to coverage: Highly sensitive to coverage encroachment.** Waterways are highly sensitive to coverage encroachment as it disrupts bank functions and renders normally biologically diverse littoral zones of ponds. These zones are the most ecologically active and occur in the shallower near-bank regions, making the edges of waterways most sensitive to encroachment.

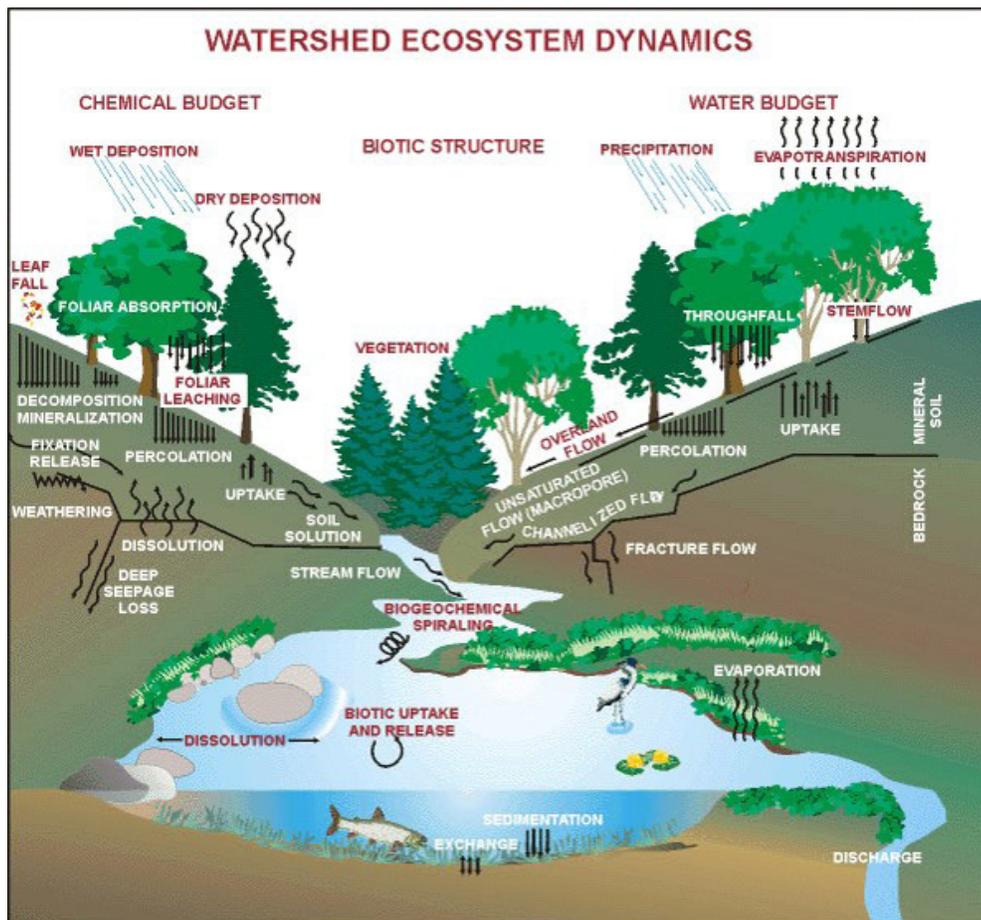


Figure 60: Ecosystem Diagram

- **Sensitivity to building height: Not applicable.**
- **Sensitivity to grading: Highly sensitive to grading.** The natural surface movement of water is key to sustained function of waterways. Therefore, grading for the creation of detention facilities can disrupt normal surface movement by the imposition of outfall structures and acceleration of water velocity. Design of such facilities to function with flow rates and flow patterns that replicate the natural flows they replace is essential.

**2. Lowlands: Lowlands are sensitive to the impacts of development.**

- **Sensitivity to disruption of natural processes: Sensitive to disruption of natural processes.** Lowlands

are the flood plain and general fringe of waterways. As a result, development in these areas can disrupt the final migration of water to waterways. Excavation and foundations, as well as hardscape areas, can all change the patterns of water migration and result in pollution of run-off, further affecting waterways.

- **Sensitivity to coverage: Sensitive to coverage.** Lowlands are sensitive to coverage and impervious areas as they both accelerate water movement to waterways and prevent migration to waterways via soil seeps. Any accelerated water movement in the highly erodible, alluvial soil types will transport silt to waterways and detention facilities. Also, the potential for scouring

is greatest in this area, which is destructive to tree groups.

- **Sensitivity to building height: *Low sensitivity to building height.*** Because lowlands are at lower elevations, they tend to hide building height from general view. Therefore, lowlands are less sensitive to building height.
- **Sensitivity to grading: *Sensitive to grading.*** The nature of soil structure and levels of soil hydration characteristic of lowlands makes them fertile locations for plants and habitat for animals. Therefore, any disturbance of the soil structure as a result of grading would have far reaching impacts.

### 3. Midlands: Midlands are moderately sensitive to the impacts of development.

- **Sensitivity to disruption of natural processes: *Less complex natural processes in this area make them less sensitive to disruption.*** The hydrologic function of Midlands is to transport runoff to lower elevations. Resistance to erosion is accomplished by protective vegetative cover, which also provides habitat for smaller animals. Therefore, there is some disruption of habitat, which can be accommodated in landscape design, and some disruption of sheet flows, which can be accommodated through hydrologic design.
- **Sensitivity to coverage: *Less complex natural processes in this area make them less sensitive to the impacts of coverage.*** Coverage, properly designed to avoid point flows and promote sheet flows, can provide continuity to the movement

of water from uplands to waterways.

- **Sensitivity to building height: *Moderately sensitive to building height.*** The elevation difference between bottom lands and Midlands is not so great as to significantly raise the visibility of taller structures. However, there may be points within the spatial envelope of this zone that are more visible than others.
- **Sensitivity to grading: *Moderate sensitivity to grading.*** The gentle slope of midlands will only require moderate grading encroachment. There will be instances where building pads and access-ways will require retaining structures. In such cases, retaining structures should be designed so as to facilitate water movement without acceleration.

### 4. Slopes Over 5%: Slopes are sensitive to development and to loss of landmark significance as a result of development.

- **Sensitivity to disruption of natural processes: *Less complex natural processes in this area make them less sensitive to disruption.*** Minimal hydrologic function of slopes makes them less important to the transport of runoff to lower elevations. However, a steeper slope does accelerate water flow and, thereby accelerates erosion. Any disturbance of erosion protection vegetation will expose the landform to the erosion effect. In that slopes are landmark landforms, any attempt to accomplish erosion control through structured means, such as slope armoring, will be highly visible and disruptive to the pastoral image of Westlake.
- **Sensitivity to coverage: *Steep grade***

**conditions in this area make them very sensitive to the impacts of coverage.** Coverage in slope areas will have dramatic impact as it will require modification of the land profile and augmentation of the landmark significance of the slope condition.

- **Sensitivity to building height: *Highly sensitive to building height.*** The visibility of slopes and their landmark significance makes them undesirable places for building height. However, there may be points within the spatial envelope of this zone that are less visible than others and, therefore, more forgiving for building height.
- **Sensitivity to grading: *Highly sensitive to grading.*** The steep slope of this area will experience significant change with even a small amount of grading. In all instances building pads and access-ways will require retaining structures, and such structures further augments the landmark significance of slope areas.

**5. Uplands: Low sensitivity to development.**

- **Sensitivity to disruption of natural processes: *Less complex natural processes in this area make them less sensitive to disruption.*** Minimal hydrologic function of uplands makes them less important to the transport of runoff to lower elevations. However, augmentation of natural sheet flows to point flows will increase water velocity in midland areas and promote downhill erosion. Soils on the hilltops will be thinner and more sensitive to erosion.
- **Sensitivity to coverage: *Flatter grade conditions in this area make them less sensitive to the impacts of coverage.*** Coverage in upland

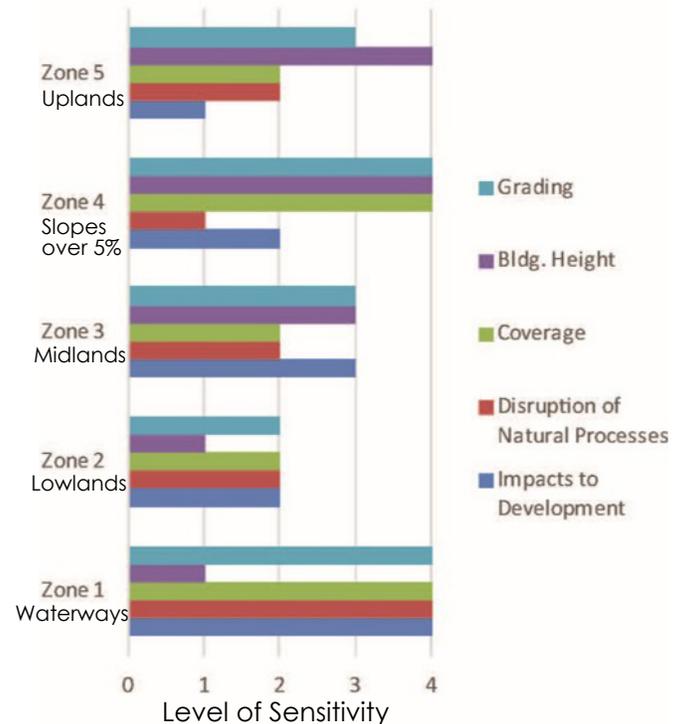


Figure 61: Development Sensitivity Graph

areas will have less impact than other areas. The flatter land profile can accommodate coverage.

- **Sensitivity to building height: *Highly sensitive to building height.*** The visibility of uplands and their landmark association with steep slopes makes them undesirable places for building height.
- **Sensitivity to grading: *Moderately sensitive to grading.*** The flatter land of hilltops will require minimal grading, thereby making the impacts of grading less apparent. Also, simpler natural processes in this area are not as severely affected by disturbance of the soil.

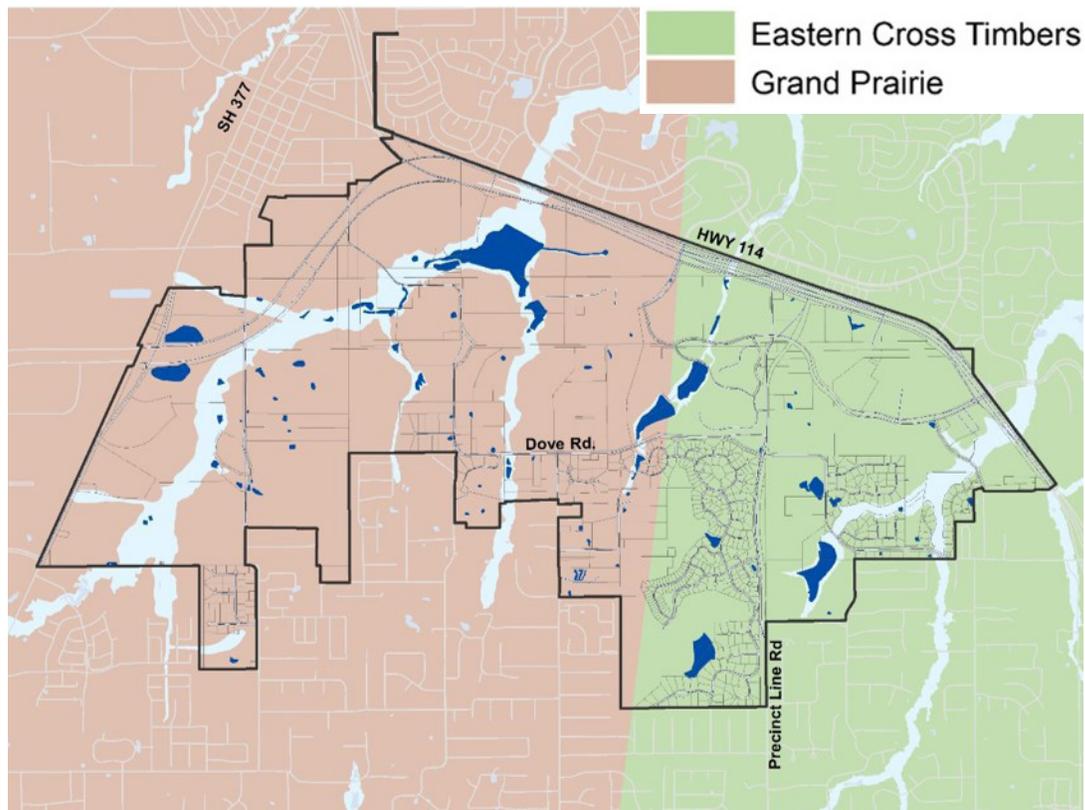


Figure 62: The Ecoregions of Westlake

**DEVELOPMENT SUITABILITY ANALYSIS:  
Part Two**

Development regulations impact what types of uses we find in our communities, but they also impact how things look, how things are connected, and where things go. Our communities are complex, and the regulations we put in place are intended to preserve the overall form and feel of the places we live.

This Comprehensive Plan Update sets forth a vision for how Westlake will grow in the future. It will provide goals, objectives and guiding principles related to key components of the built form of Westlake. Before we can do this, however, it is important to answer three questions:

1. What does the natural landscape of Westlake look like from a developability perspective?

2. Based on current property rights of existing zoning, what development opportunities are in place in Westlake today?
3. Where can we find opportunities to contextualize the natural landscape to capture these development opportunities?

**The Natural Landscape of Westlake**

Westlake sits along the boundary between the Eastern Cross Timbers and the Grand Prairie ecoregions. The transitional nature of the ecosystem of the Town, as illustrated in Figure 62, explains its complexity and its value. Drawing from the rich soil profile of the Grand Prairie and the attractive vegetation of the Cross Timbers, Westlake houses a diverse landscape that is suitable not only for agricultural practices, but also for development. It is this convergence of interests – agriculture and development –

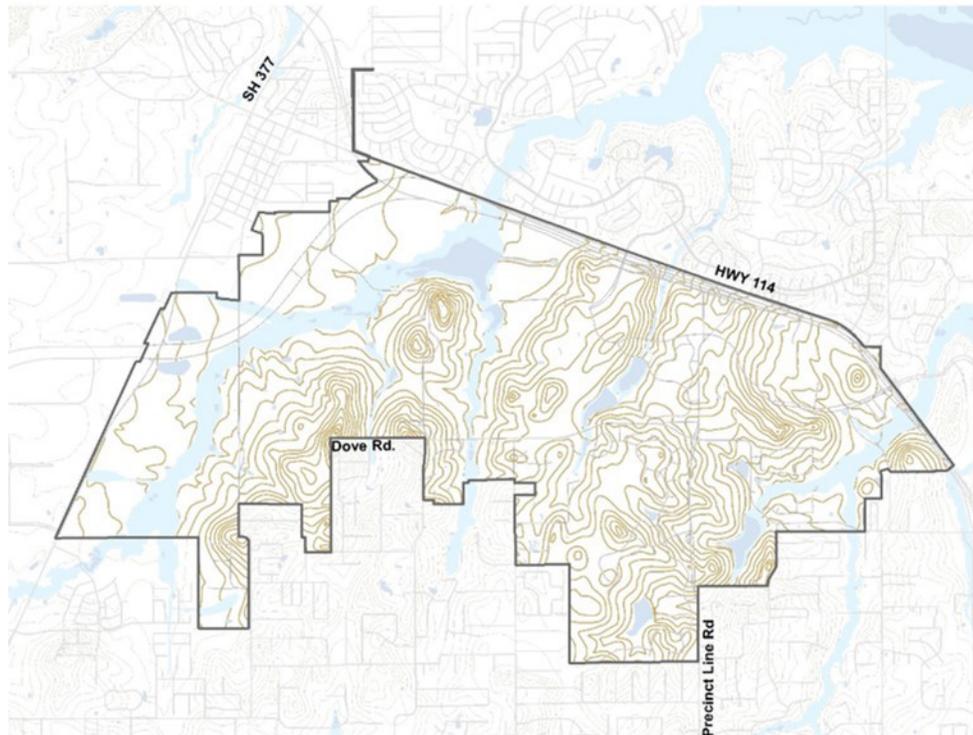


Figure 63: Westlake Topography

that give Westlake its inherent value from a landscape perspective.

Historically, Westlake has preserved a high degree of landscape integrity, meaning that development has been contextualized to fit within the natural landscape, rather than altering that landscape to make it visually subordinate. Rolling hills and pastureland define the character of the Town; and all developments, including commercial expressions, are designed to fit into this context.

Contextualization, which grows from a commitment to landscape integrity, is what has helped to preserve the property values sustained in Westlake. It is, therefore, important that the Plan creates mechanisms to continue the commitment to landscape integrity, not only to preserve the pastoral landscape of the Town, but to also preserve property values. In this sense,

landscape integrity needs to guide the development-related considerations of the Comprehensive Plan.

When considering landscape integrity, the two primary drivers of the natural form of the community are topography and hydrology. The topography, or changes in elevation, of Westlake are quite unique. The undulation of hills has created numerous pockets of hidden, low-lying land, as well as higher vistas with rich viewsheds. Roadways have a meandering feel to them, even when they move more or less in a straight line, due simply to the rolling nature of the terrain. Historically, topography has been a high value component of the natural landscape, as is evidenced by the restrictions in the Town's code regarding elements such as grading and building orientation. Figure 63 indicates the general topography (elevation changes) in Westlake and in the surrounding area.

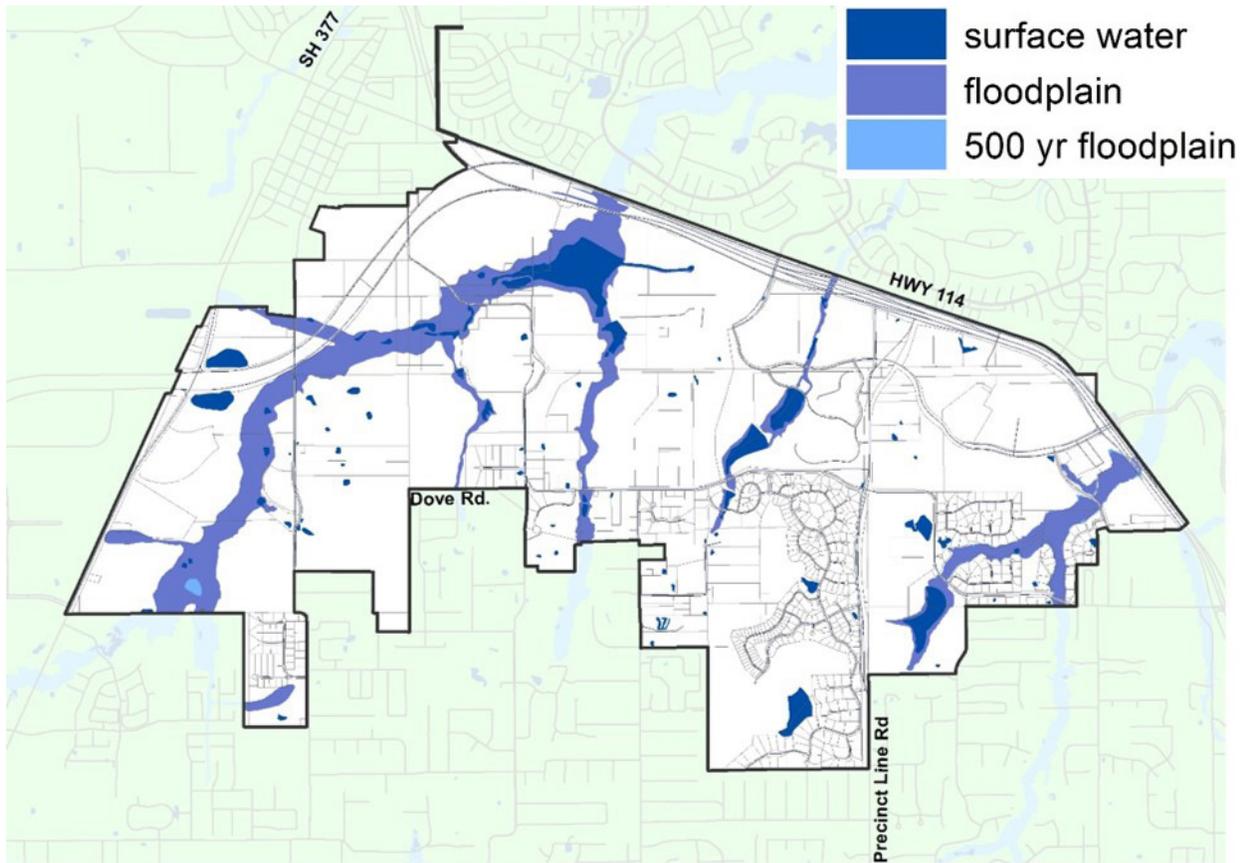


Figure 64: Westlake Hydrology

Hydrology, or the behavior of surface water, has also done much to shape Westlake. Westlake sits along two tributaries feeding into Lake Grapevine: Higgins Branch, located in the eastern part of town, is a visible creekway that retains water, and the other tributary on the west side of Town was dammed to create Turner Lake. This reservoir is largely undeveloped and helps with surface water management (storm water and drainage) for Westlake and surrounding towns. Figure 64 shows the surface water patterns in the Town and surrounding area.

Whereas topography has been codified as a valuable attribute of the Westlake landscape, hydrology has not. This means that there is latent value associated with water features in Westlake that has not been fully captured. This should be explored through the visioning process to

identify targeted types of development that can have positive associations with water features.

### Current Development Opportunities

The zoning code of the Town defines what is permitted on every property within the Town. Some land can be used for residences, some for offices, some for stores, some for industry, and some for public uses. Although there are times when the zoning assigned to a property can change, the intent is to preserve the rights of property owners to be able to use their property as they see fit while remaining within the parameters established by the zoning code.

The zoning code establishes categories of use, such as residential, industrial and commercial. For each category, a list

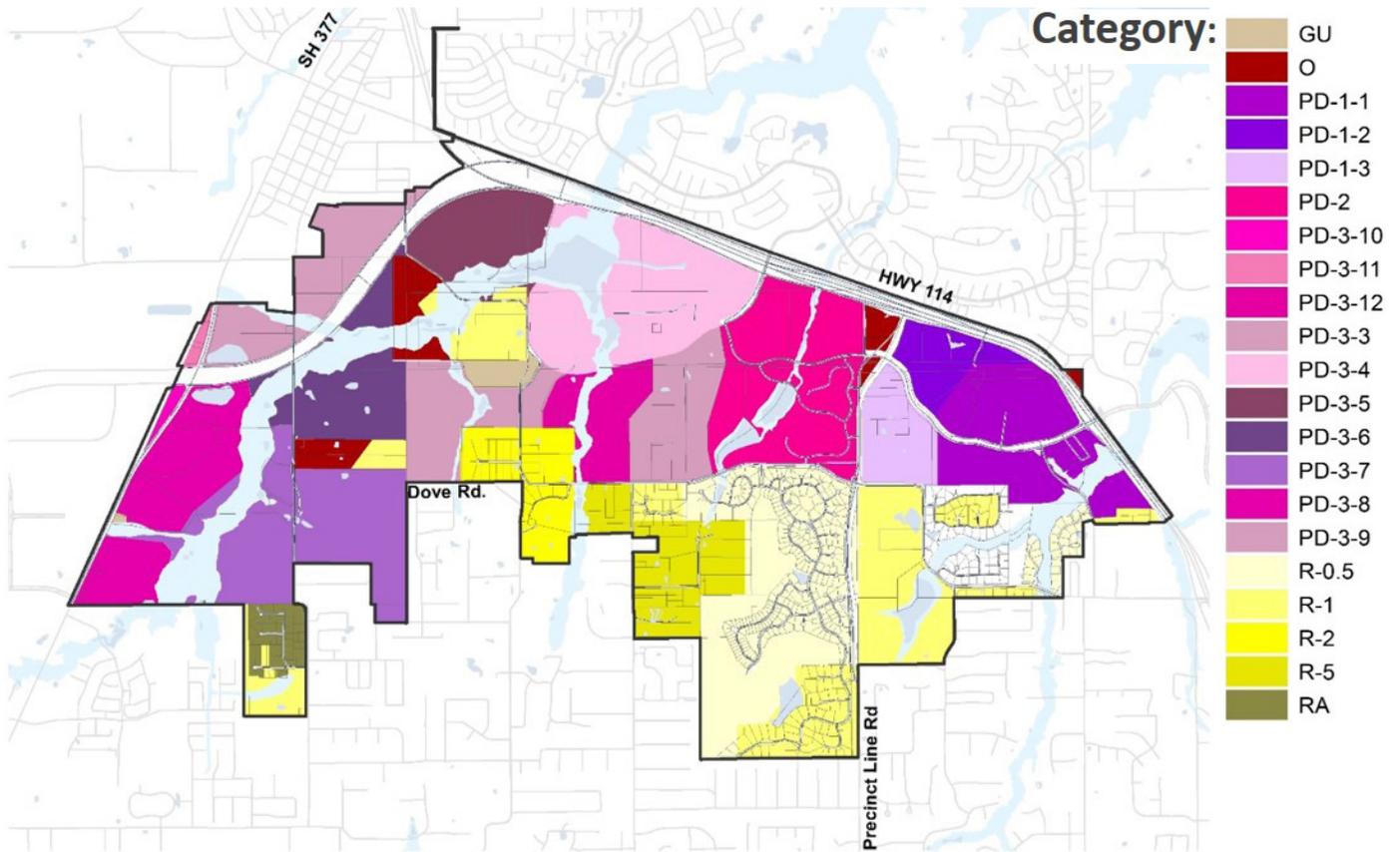


Figure 65: Current Westlake Zoning

of specific uses are identified, as well as standards for development of the property (landscaping, lighting, signage, etc.). This list of approved uses secures the property owner’s rights to use their property in the future. Therefore, how the properties of Westlake are zoned is a snapshot of what the future of the town would look like in terms of development, should nothing change.

In general, land south of Dove Rd. is zoned for residential use, while land north of Dove Rd. is zoned for planned

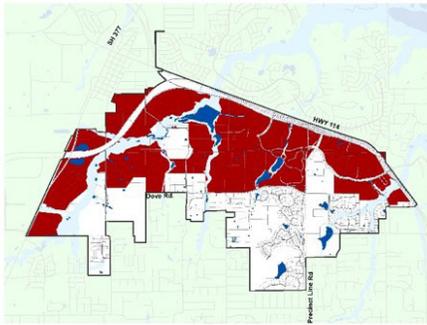
developments. “Planned Development” – or PD – is a zoning category that allows owners of larger tracts of land to plan at a larger scale. PDs typically contain a mixture of uses and may have their own standards with respect to landscaping, signage, building heights, and setbacks. In Westlake, PDs cover the majority of the land of the Town. Although this is good in the sense that it promotes a mixture of uses clustered around key thematic elements, it can be problematic in terms of growth management and preservation of community vision.

ZONING CATEGORY	SINGLE FAMILY	MULTI FAMILY	RESORT/HOTEL	VERT. MIX USE	OFFICE/COMM	RETAIL	RECREATION	PARK/OPEN SPACE	CIVIC	INSTITUTION	INDUSTRY/TRADE	AGRICULTURE
GU						X		X	X			X
O			X		X	X	X	X	X	X		X
PD-1-1			X		X	X	X		X	X		
PD-1-2	X				X	X	X		X	X		X
PD-1-3	X						X	X	X			
PD-2					X	X	X		X		lab/R&D	X
PD-3-10					X	X	X	X	X	X		X
PD-3-11			X		X	X	X	X	X	X		X
PD-3-12			X		X		X	X	X	X		X
PD-3-3			X		X	X	X		X			X
PD-3-4			X		X	X	X	X	X	X		X
PD-3-5	X		X		X	X	X		X	X		X
PD-3-6	X		X		X	X	X	X	X	X		X
PD-3-7	X						X	X	X			X
PD-3-8			X		X	X	X	X	X	X	X	X
PD-3-9	X	X	X	X	X	X	X	X	X	X	X	X
R-0.5	X						X	X				X
R-1	X						X	X				X
R-2	X						X	X				X
R-5	X						X	X				X
RA	X						X	X				X

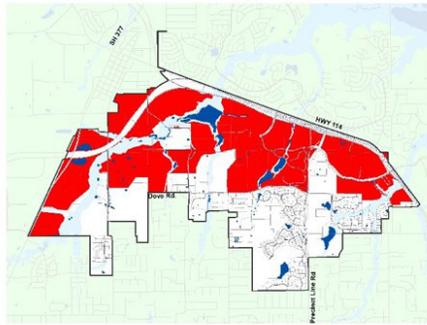
Figure 66: Permitted Uses Under Existing Zoning Designations

Each PD assignment has its own set of rules and regulations and is, therefore, not subject to community-wide standards like that of other properties. Therefore, the Comprehensive Plan must anticipate the limited ability of conventional zoning to translate community vision into development regulations. Conventional modification of base zoning categories, such as residential and office, will not impact development on properties that are zoned PD. Alternative measures will be necessary to codify community vision.

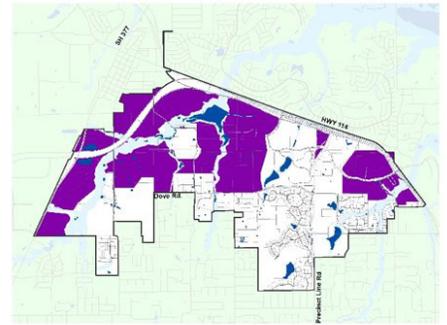
The uses permitted in the Town of Westlake have been included here in the table in Figure 66. It demonstrates what uses are permitted in each of the zoning categories of the Town's code of ordinances. The rows indicate the actual zoning categories that exist for the Town of Westlake. The columns indicate general land use categories, such as multifamily, retail and parks.



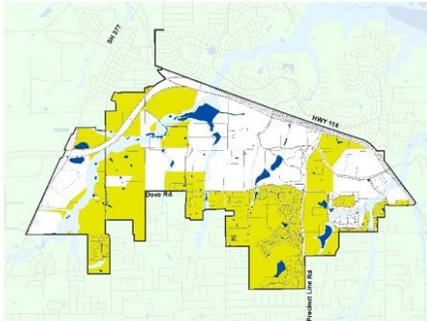
Office



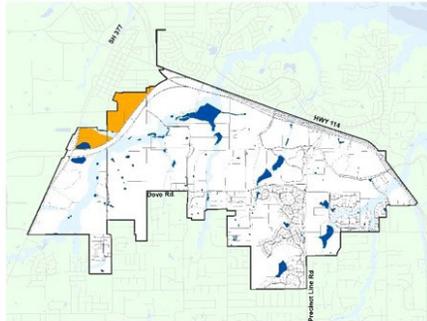
Retail



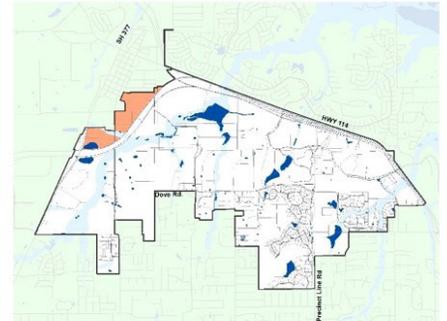
Resort/Hotel



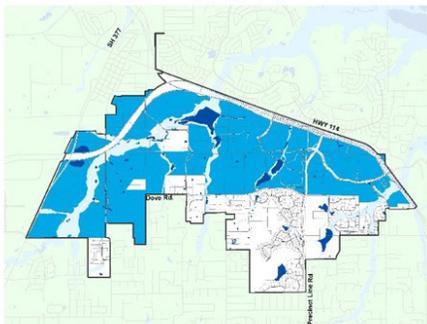
Single Family Residential



Multi-Family



Vertical Mixed Use



Civic



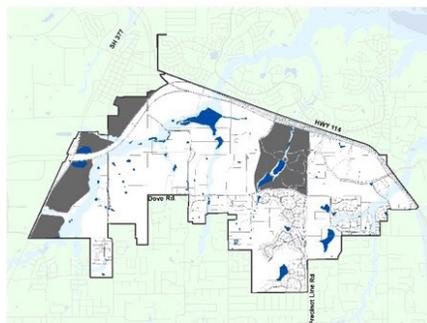
Recreation



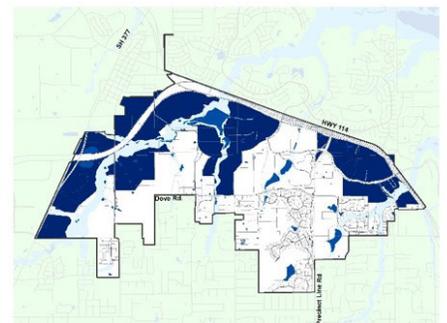
Park/Open Space



Agricultural



Industrial



Institutional

Figure 67: Permitted Uses in Westlake by General Land Use Category

Tying this table to the zoning map is particularly helpful when it comes to understanding what is possible to build in Westlake, according to property rights assigned to the parcels today. Figure 67 is a sequence of maps that show where each of the general land use categories are permitted within the Town. This does not speak to anything related to building or site design, only which uses are permitted on which tracts.

Office and retail uses follow a very similar pattern of distribution as permitted uses in most of the parcels located north of Dove Rd. and along the western edge of the Town. It is important to note that, although these two uses are compatible with each other, they create different types of traffic patterns and parking demands and have different impacts on the viewshed of the Town. Other differences are due to financial performance of these two product types, as seen in life cycle costs and long-term community impacts associated with shifts in tenancy.

Resorts and hotels are great additions to any community because they provide needed buffers between commercial uses and residential uses. They also create opportunity for landscape preservation, as viewshed and theming are important considerations for resort development. Fortunately, most of this land sits along the major waterway of the Town, offering opportunity to separate more intense development expressions along Alliance Gateway and SH 114 from the residential areas of the community. Care must be taken, however, to ensure that such resort/hotel developments in Westlake do not use up land that would be more effectively used for something else.

Very little of the land north of Dove Rd and along Alliance Gateway is zoned single family residential, but single family residential is a permitted use on some of the properties zoned as PD. This is of particular concern in those areas adjacent to Alliance Gateway, where higher densities and commercial uses would be more desirable.

There is little demand from the existing community with regard to an increase in multi-family and vertical mixed use due to concerns about median home values, density and overall quality of development in Westlake. That being said, the small window that exists for this form of development, as indicated in the Multi-Family and Vertical Mixed Use maps in Figure 67, needs to be preserved. Because many other uses are also permitted in this small pocket, care needs to be taken to ensure that there is opportunity for expressions of higher residential density in the northwest portion of Westlake and that patience is exercised to ensure that this pocket absorbs the higher densities that are not desired in other areas of the community.

Civic uses, which include government uses and public facilities, are permitted in most of Westlake north of Dove Road. This encourages dispersion rather than aggregation of said uses. While it may be appropriate to have some civic uses dispersed, aggregation of civic elements are needed to create a true center for the Town. This also ensures that the market has access to land in the right places in the community, returning highest and best use, economically speaking, as the level of return on public land is not equal to that on private land.

It is difficult to find a parcel in the Town of Westlake that cannot be designated for recreational use. It is important to understand that, although recreational uses do much to benefit the community, such uses do not promote the pastoral aesthetic the Town seeks to preserve. Nor do they contribute significantly to the Town's tax base; they are useful as buffers and as activity anchors for the community. As such, careful placement is necessary in order to preserve both the natural and economic context of Westlake, while providing amenity for the Town's residents. It is important to note that although golf course communities definitely preserve a higher price point than many other residential forms, market surpluses never improve the quality of development. An oversupply of land approved for golf course communities puts neighboring projects in competition and discourages consideration of other community expressions that might be equally advantageous in Westlake.

The land that is zoned to permit parks and open spaces aggregates around either the creekways of the Town or around the residential areas south of Dove Road. This is an appropriate distribution in general; although, of concern is the amount of park/open spaces that could be designated along 377 and Alliance Gateway. These PDs should be visited to ensure that development density is appropriately captured along these roadways. Also important to note is that not all property fronting waterways should be set aside for parkland. Water is a wonderful amenity for development and does much to strengthen property values. Westlake should see to find commercial and residential expressions, as well as parks and open spaces, along the Town's waterways.

Interestingly, most of the land in Westlake is zoned to permit some form of agricultural use. Although this is in keeping with the pastoral heritage and aesthetic that the community historically values, it is not necessarily in keeping with retail, office, resort and hotel uses that are also permitted in these same areas of town. This use exemplifies the modalism that sits underneath the surface in Westlake: an expectation for a pastoral image in the context of commercial land development practices. Although not mutually exclusive, it is difficult to maintain agricultural and commercial uses in the same context. This is one of the largest challenges of the Comprehensive Plan.

Industrial uses are permitted along US 377 and selectively off of SH 114. This is not to be overlooked, as these uses are not compatible with some of the other uses that are also permitted in these areas. Adjacency to industrial uses will need proper buffering to minimize any negative effect on development due to viewshed, noise, light, air, soil, and water impacts.

Institutional uses include schools and healthcare facilities. These are very important building blocks for our communities. Like many other uses discussed, however, there is a high level of overlap with other uses in Westlake. Where limited development expression is found (i.e., multi-family or industrial), institutional uses can hinder a balanced distribution of land uses for the Town. The advantage of

ZONING CATEGORY	SINGLE FAMILY	MULTI FAMILY	RESORT/HOTEL	VERT. MIX USE	OFFICE/COMM	RETAIL	RECREATION	PARK/OPEN SPACE	CIVIC	INSTITUTION	INDUSTRY/TRADE	AGRICULTURE
GU						X		X	X			X
O			X		X	X	X	X	X	X		X
PD-1-1			X		X	X	X		X	X		
PD-1-2	X				X	X	X		X	X		X
PD-1-3	X						X	X	X			
PD-2					X	X	X		X		lab/R&D	X
PD-3-10					X	X	X	X	X	X		X
PD-3-11			X		X	X	X	X	X	X		X
PD-3-12			X		X		X	X	X	X		X
PD-3-3			X		X	X	X		X			X
PD-3-4			X		X	X	X	X	X	X		X
PD-3-5	X		X		X	X	X		X	X		X
PD-3-6	X		X		X	X	X	X	X	X		X
PD-3-7	X						X	X	X			X
PD-3-8			X		X	X	X	X	X	X	X	X
PD-3-9	X	X	X	X	X	X	X	X	X	X	X	X
R-0.5	X						X	X				X
R-1	X						X	X				X
R-2	X						X	X				X
R-5	X						X	X				X
RA	X						X	X				X

Figure 66: Permitted Uses Under Existing Zoning Designations

institutional uses, however, is that they are compatible with a broad range of other uses. This is, therefore, a highly flexible use designation in terms of contextualization. Institutional uses are appropriate in many contexts.

As indicated in Figure 66, there is a high level of flexibility in what can be built in Westlake. Although many of the PDs include restrictions in terms of height, density, setback and number of units. When you consider the use allocations, it becomes quickly apparent that there is a very high level of ambiguity in what will

ultimately be built in many parts of the Town.

This is both a positive and a negative. Flexibility enables property owners to respond more organically to market demand and/or sequence development appropriately over time. However, in the absence of effective codification of community vision, it can lead to opportunistic development patterns, which, in the case of Westlake, could disrupt the character, aesthetic and property values that for years have been successfully preserved.

(1) *Residential districts.*

- a. *R-5, country residential district.* The R-5 country residential district is intended to be composed of single-family dwellings on lots measuring a minimum of five acres (217,800 square feet) excluding all required public dedications, including but not limited to rights-of-way, parks, and open spaces. Country residential districts are intended to provide an opportunity for rural character residential development. It may also be used in areas with steep topographic changes in order to minimize alteration of the terrain.
- b. *R-2, rural residential district.* The R-2, rural residential district is intended to be composed of single-family dwellings on lots measuring a minimum of two acres (87,120 square feet) excluding all required public dedications, including but not limited to rights-of-way, parks, and open spaces. Rural residential districts are intended to provide an opportunity for rural residential character. It may also be used in areas with steep topographic changes in order to minimize alteration of the terrain.
- c. *R-1, estate residential district.* The R-1, estate residential district is intended to be composed of single-family dwellings on lots measuring a minimum of one acre (43,560 square feet) for the subdivision excluding all required public dedications, including but not limited to rights-of-way, parks, and open spaces. Such developments offer the ability to develop at a higher density without compromising the rural residential character of the town.
- d. *R-0.5, neighborhood residential district.* The R-0.5, neighborhood residential district is intended to be composed of single-family dwellings on lots measuring a minimum of a half acre (21,780 square feet), excluding all required public dedications, including but not limited to rights-of-way, parks and open spaces. The R-0.5, neighborhood residential district is intended to be applied to relatively flat land where building sites may be created without the use of retaining walls and the removal of significant amounts of vegetation or mature trees.

Figure 68: A Snapshot of Purpose and Intent Statements for Residential Zoning

## Promoting Landscape Integrity and Capturing Development Opportunity

### Topography and Zoning: The Need for Recalibration

As previously discussed, topography (variations in elevation) is a key defining element in the Westlake landscape. This has been understood well in the past, as topography has been a determinant in zoning with respect to density. Figure 68 is

a snapshot from Westlake's zoning code, illustrating the language that was used to preserve topography when properties develop. The purpose and intent of the residential density allocations of the Town is to minimize alteration of the terrain and preserve the natural elevation changes. To do this, zoning categories were created to require larger lots in areas with steep elevation changes and smaller lots in areas with minimal elevation changes. The goal of this approach was to encourage lower

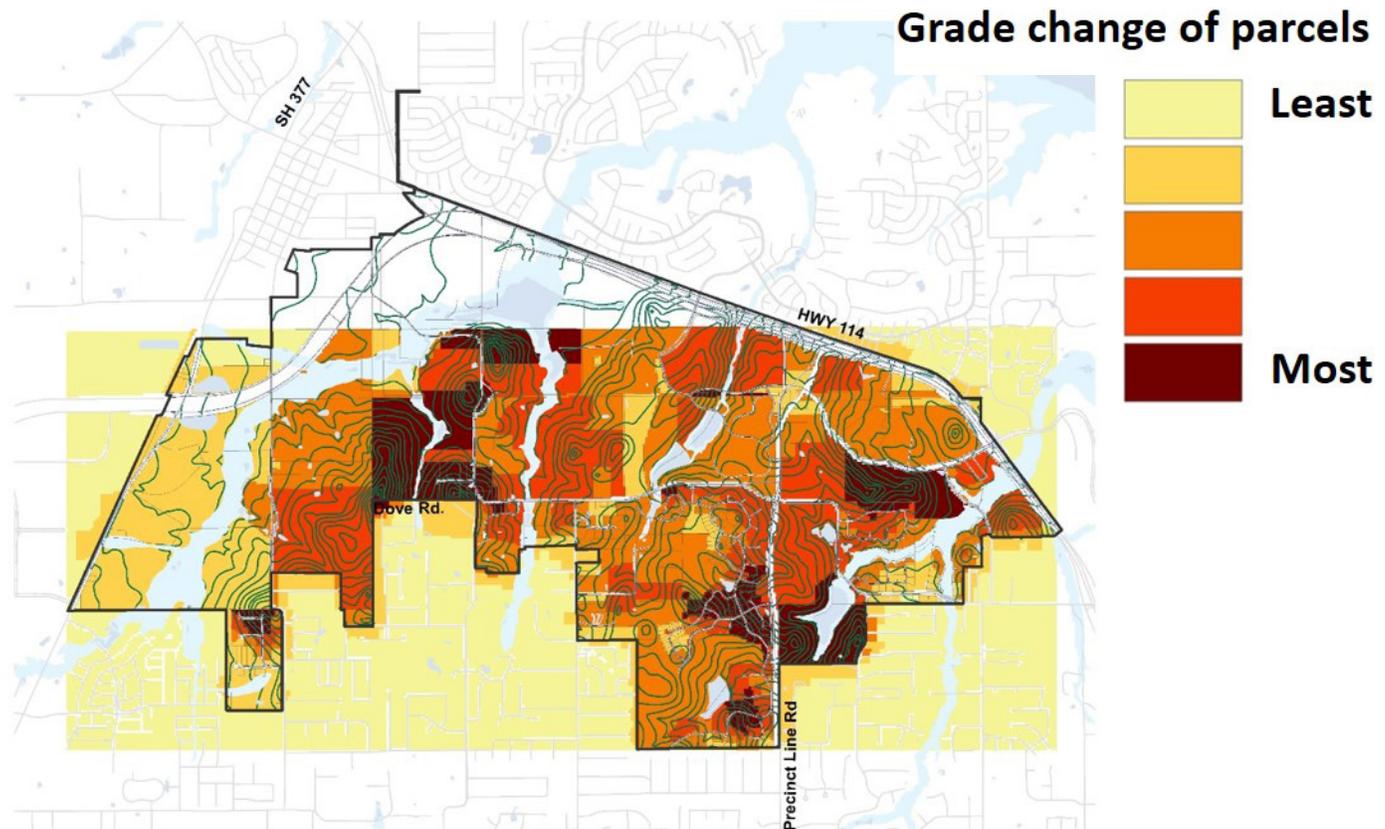


Figure 69: Relative Intensity of Elevation Changes in Westlake

densities in more ecologically sensitive areas and higher densities in less sensitive areas.

While this is a great approach to density distributions, it only works if the actual categorical assignments align with their purpose and intent. To see if this was the case, a comparative line density analysis was conducted to determine if the areas with steeper grades correlated to the areas with the lower density designations (and if the converse also held true). This analysis considered only residential zoning, as most non-residential land is governed by PDs, and PDs are not held to consistent standards throughout the community.

Figure 69 shows the relative intensity of elevation change across the Town of Westlake. The darker colored parcels represent those areas where topographic change is the steepest. The lighter colored

areas represent those areas where topographic change is the flattest. The contour lines were included in the map to further illustrate this difference (more space between lines implies a flatter area, whereas less space between lines implies a steeper area). According to this line density map, the residential pockets along Precinct Line Road in the southern part of Town, as well as a few parcels surrounding Westlake Academy and Solana, are the steepest grades in Westlake. Theoretically, these darker brown parcels should have the lowest residential density assigned to them to be able to build residences without destroying the topography and terrain. Conversely, the western edge of town and the area along Precinct Line Road in the northern part of town is characterized by less elevation change. These parcels should, according to existing zoning criteria, be assigned higher density, due to the lower impact that

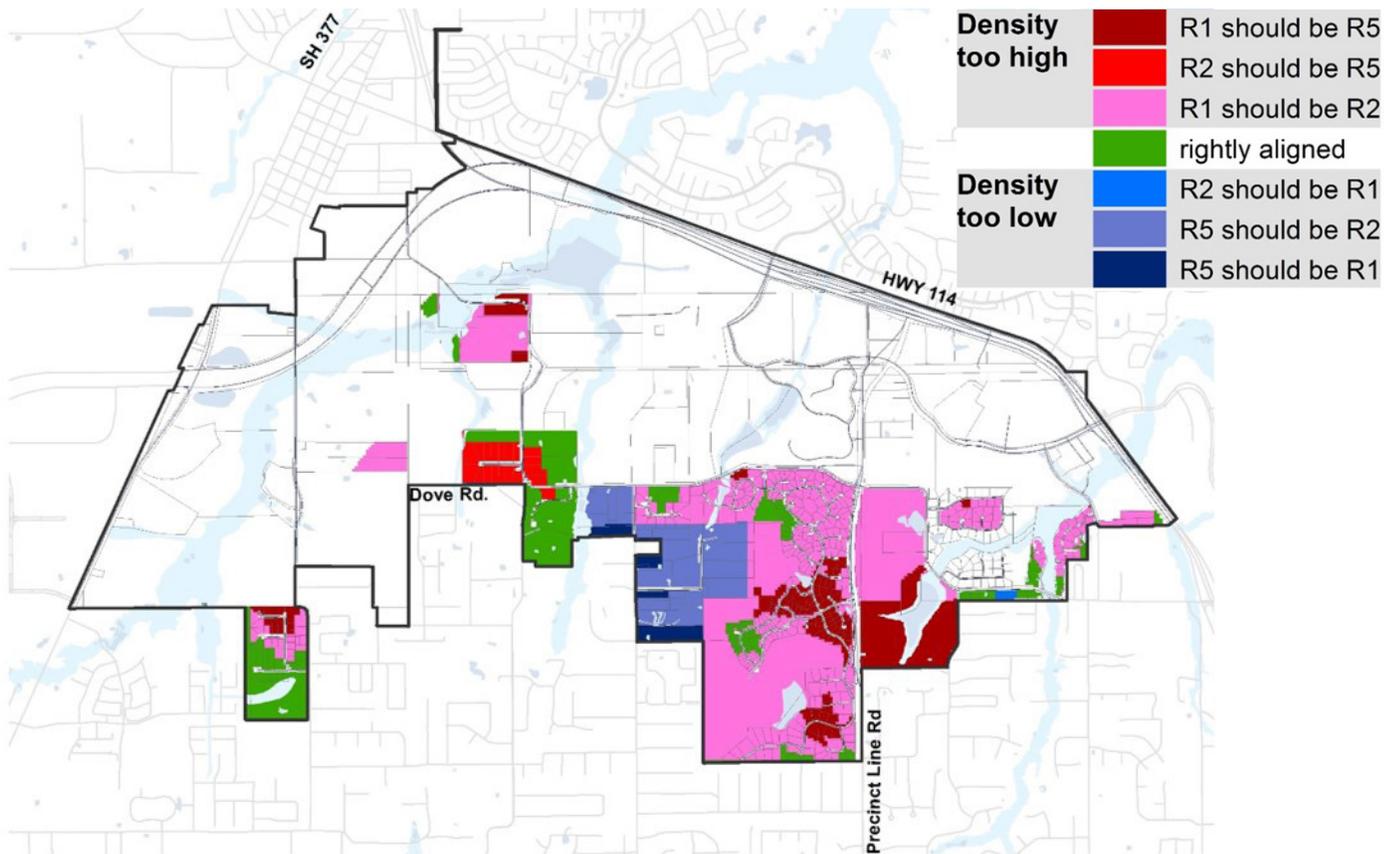


Figure 70: Topography and Zoning: Consistency of Designations with Purpose and Intent

development would have on terrain in these areas.

Figure 70 shows how existing zoning designations align with slope. The red color scale is used for parcels where density is high (relatively speaking), but slope would call for density to be low. The darker the red, the greater the conflict between density and steepness of slope. The blue color scale is used for parcels where density designation is lower than what would be called for based on slope. Dark blue parcels, therefore, have minimal grade change yet very low density.

This is a technical illustration of consistency of the zoning code with its own stated purpose and intent. Whereas the purpose and intent statements indicate that topography and terrain are to be

preserved by the regulation of density, the actual zoning designations on the ground in Westlake show that density has not been defined based on topography but on some other consideration or range of factors. As the Town moves forward and anticipates future development, care needs to be given to the ordinances and regulatory instruments put in place in order to ensure that the community vision is translated accurately into policy measures and that those measures are consistently enforced.

It is important to note that topography should not be the sole determinant in density distribution. There are other factors that should be taken into consideration. However, if landscape integrity is a community value, then the measures put in place by the zoning code must be

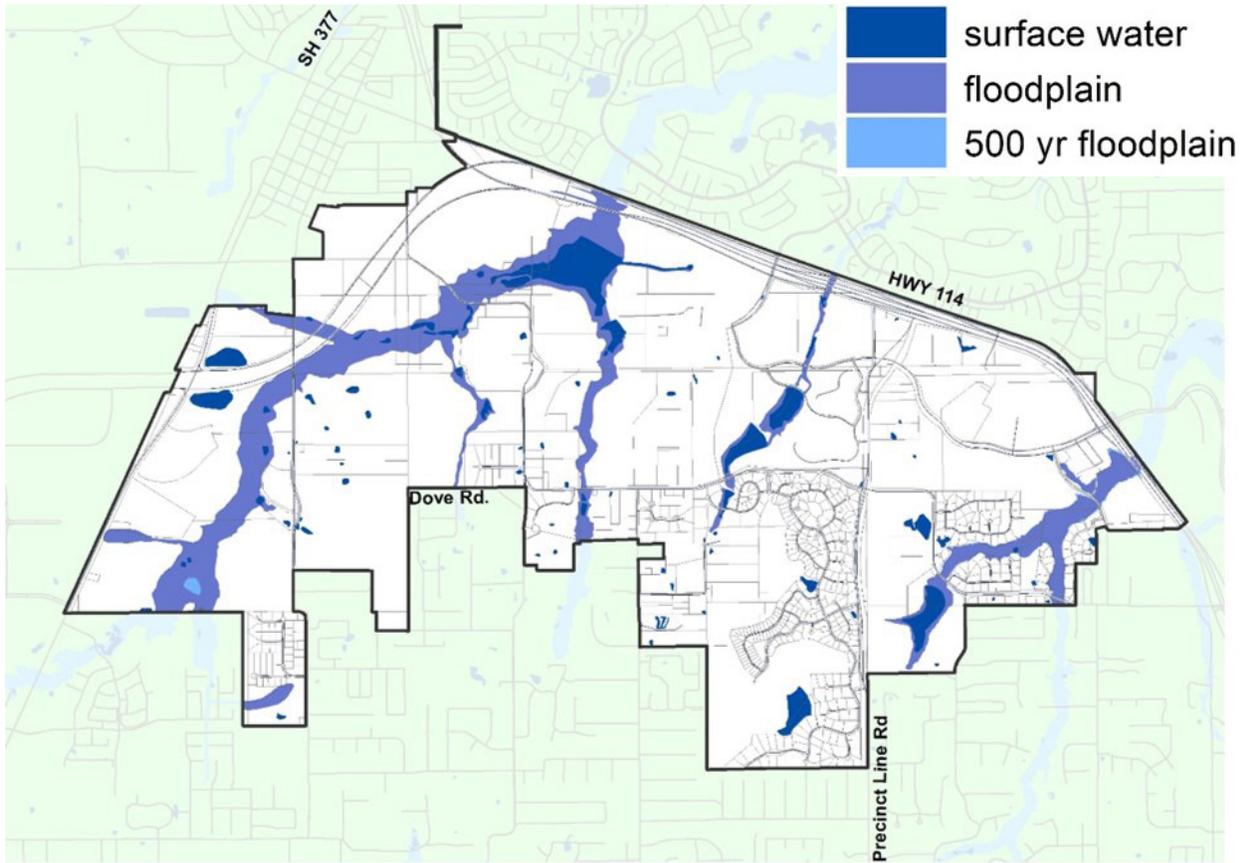


Figure 71: Westlake Hydrology

effective in preserving the integrity of that landscape. The code should be revisited in order to determine if there are other measures that may be equally effective in promoting landscape integrity and whether the categorical assignments of the Town could be modified in order to achieve the community's stated goals.

**Hydrology and Zoning: The Need for New Tools**

The surface water system of Westlake provides wonderful windows of opportunity for development expressions that build off of landscape-oriented amenities. Currently, the zoning code does not acknowledge the hydrology of the Town, and, in this way, it does little to maximize the potential of tracts that could benefit from water-oriented development. Just

as transit-oriented development should give thought to the interface between transit (transportation of large volumes of people) and land use, water-oriented development should give thought to the interface between drainage (transportation of large volumes of water) and land use.

Figure 71 shows the hydrologic footprint of Westlake. Although Turner Lake has altered stream flow in its watershed, the footprint is still there; modification of flow patterns could resurrect this channel as a more permanent feature for the community. Future drainage capacity concerns also point to this area to resolve infrastructure development demands, which would further justify a modification in surface water management for Westlake.

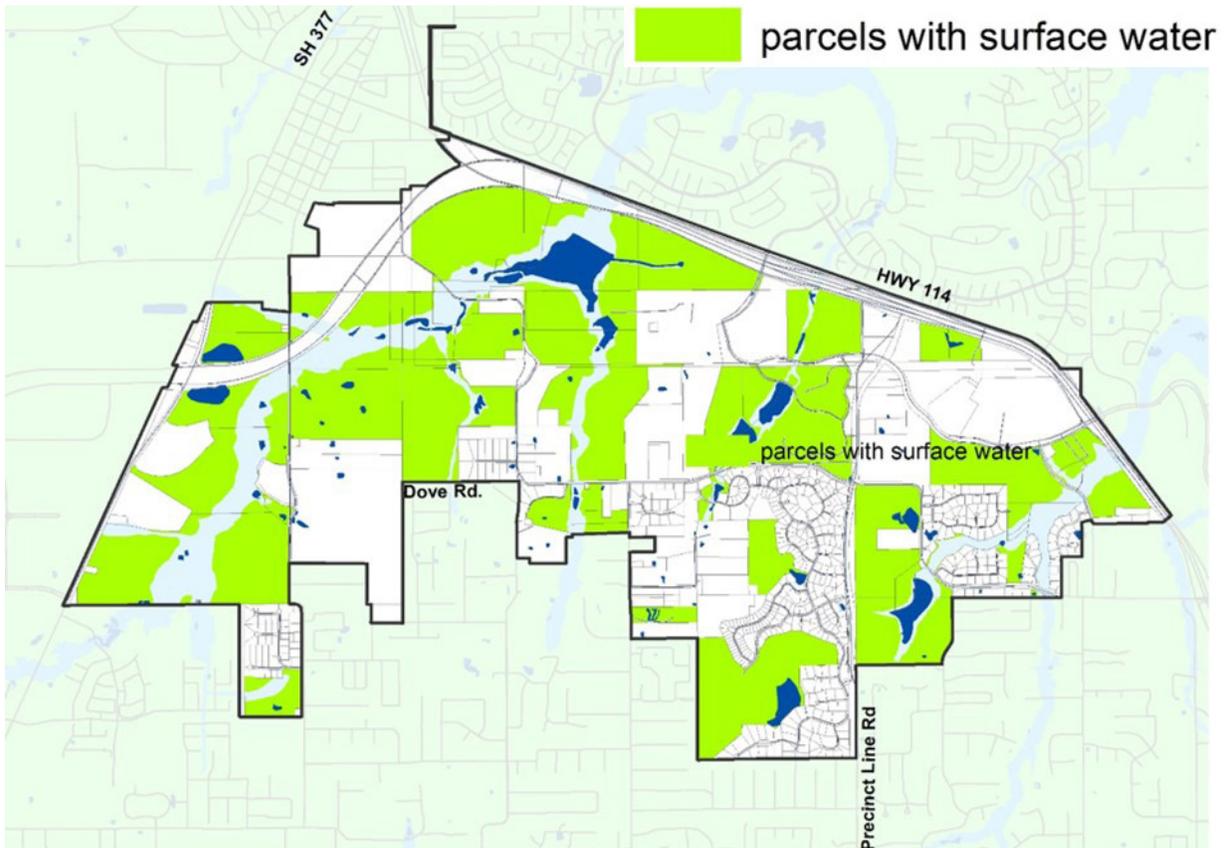


Figure 72: Parcels Positioned for Water-Oriented Development

Although there is considerable potential for expansion of the surface water system of Westlake, not every parcel fronts or contains a point of access to this system. Figure 72 highlights those parcels that could be considered for water-oriented development due to their adjacency to the floodplain of the Town.

It should be noted that as channel design and drainage projects are completed, this configuration could be modified. This is a parcel analysis based solely on the existing floodplain of Westlake. Modifications to flow patterns would bring some parcels online and remove others from possible water-oriented development scenarios in the future.

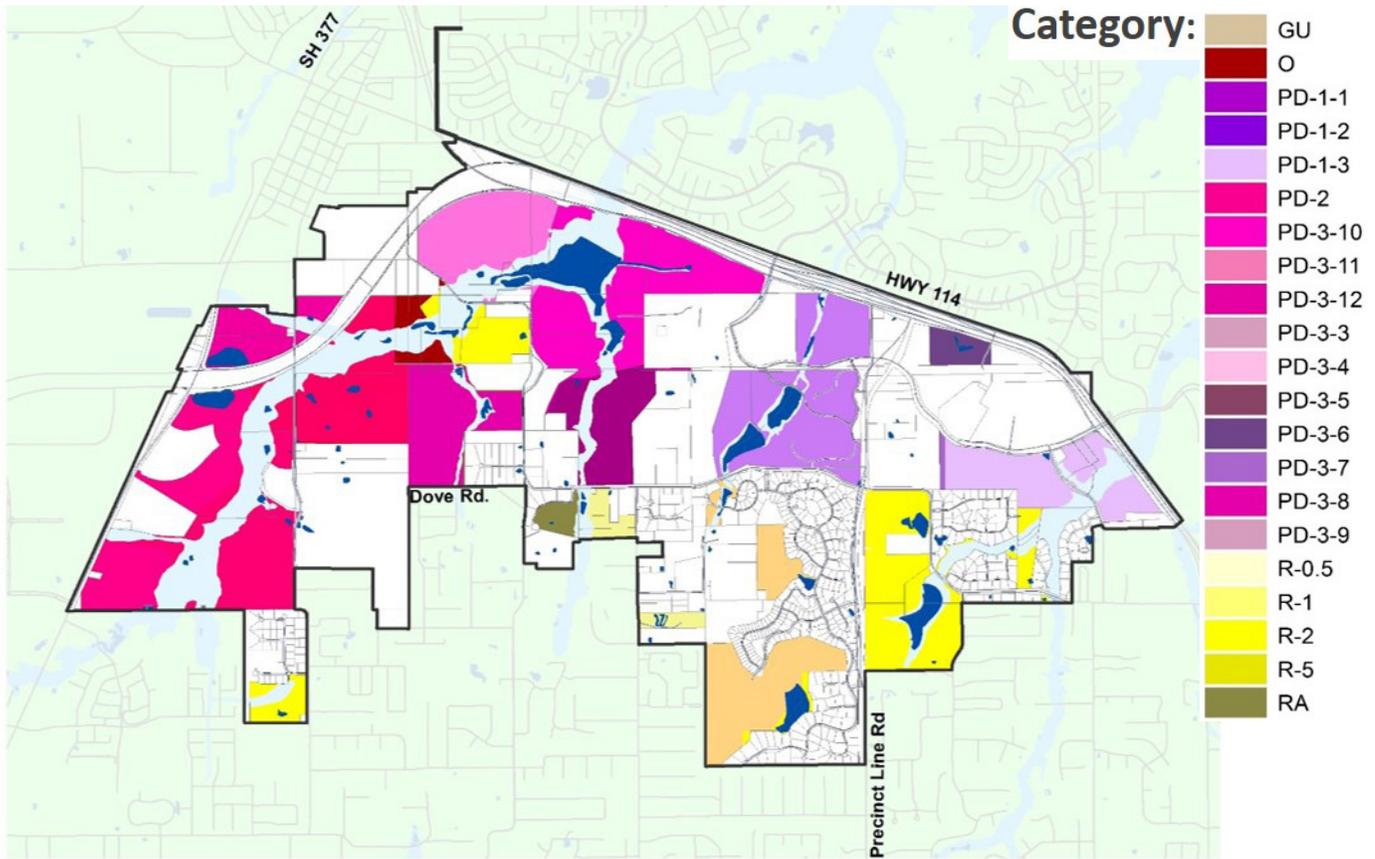


Figure 73: Zoning of Parcels to Consider for Water-Oriented Development

From a development perspective, these parcels identified as potential sites for water-oriented development are valuable only so far as their entitlements allow. It is, therefore, important to understand how these potential sites are currently zoned. Figure 73 shows the current zoning of the parcels in question.

What makes this all incredibly relevant for Westlake is that the majority of the parcels that are candidates for water-oriented development are zoned PD. As discussed earlier, PDs are designed with a higher level of flexibility in terms of approved uses but typically have more clearly defined design controls for elements like landscaping, building orientation, architectural guidelines, signage, etc.

## **Summary of Considerations for Plan Construction**

Westlake was born out of a commitment to landscape integrity, expressed in pastoral development forms where residential and commercial growth can be contextualized without subordinating the natural landscape. The two strongest determinants of landscape form, topography and hydrology should, therefore, be the guiding principles around which land use is defined and regulated.

With respect to topography, the intent to minimize grading, which is expressed in the language of the current zoning ordinance, should be promoted in other categories through the Town. Additional measures other than density designations may be more suitable to preservation of hillside and viewshed, however.

By creating opportunities for water-oriented development, Westlake can give greater definition, with respect to landscape expression, to new commercially oriented development in the Town. Water can also be investigated as a possible transitional tool between uses, tying properties together in a more project-oriented context.

With these two guiding principles, Westlake will be able to preserve landscape integrity, while operating under the confines of a PD-dominated zoning structure.

## 4. TRANSPORTATION AND CIRCULATION ASSESSMENT

### Introduction

The following assessment considers the present and future circulation trends in, and through, Westlake. Transportation will play an essential role in shaping the Town's future. Not only does it help determine how long it takes to get to and from our daily activities, such as work, school and errands, and how we'll get there, but it also plays a large role in shaping the layout and character of the community.

This section provides an assessment of transportation conditions in the Town of Westlake, including its street network, off-road facilities and transit. The information compiled here is based on on-site observations and readily available data from the Town, North Central Texas Council of Government (NCTCOG) and other sources. Additionally, this analysis is to identify the manner in which Westlake is structurally associated with its neighboring cities (namely Southlake and Keller) and the extent to which Westlake is currently functioning as a portal to SH 114 and/or commercial development along the SH 114 corridor. Once this is understood, a look at future trip volumes will reveal how those patterns are effected by new roadways and thoroughfares (proposed to accommodate future development), which may result in critical choke points that will ultimately impede the realization of such development. More specifically, this analysis considers the following:

### Current Traffic Patterns

An assessment of transportation conditions in Westlake requires an understanding of context, in terms of the role of transportation within the Town, today. Key contextual factors to be considered include the Town's position relative to the region, its street network and other modes of transportation. More detail is provided below.

### Regional Mobility

Westlake's northern boundaries are marked by SH 114 and SH 170, four-lane freeways that provide good accessibility to the rest of the region, including direct access to the Dallas Fort Worth International Airport (roughly 30 minute peak hour drive time), the Fort Worth central business district (CBD) via I-35W and SH 377 (30 minute drive time) and the Dallas CBD via I-35E/Stemmons Freeway (approximately 45 minute peak hour drive time).

SH 114 carries about 75,000 vehicles per day, while SH 170 carries about 40,000 vehicles per day. A majority of trips with an origin or destination within Westlake use these facilities to reach locations elsewhere throughout the region.

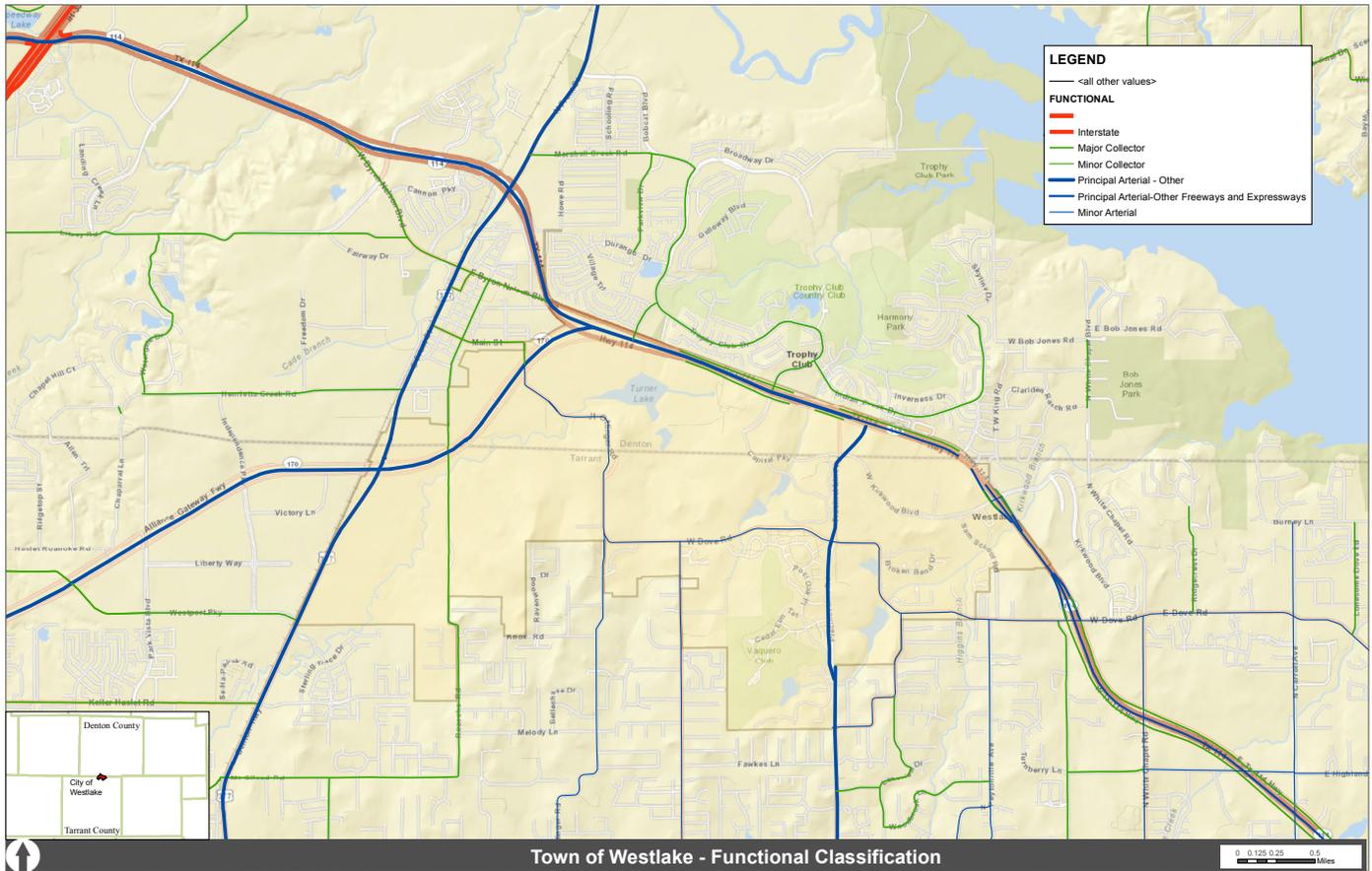


Figure 74: Transportation Classification Map

There are several regional transit services in operation, including commuter rail (Trinity Railway Express, Denton County Transit), light rail (Dallas Area Rapid Transit) and express bus service (Fort Worth Transportation Authority (The T), DART). However, none of these provide service to Westlake, but DART, The T and DCTA each operate vanpooling and carpooling programs. Additionally, Wheels provides on-demand, non-emergency medical transportation within Tarrant County for senior citizens and the transportation disadvantaged, but there is no fixed route transit service operating within Westlake.

Given that much of Westlake has yet to be developed, the existing street network (Figure 74) is relatively sparse. Two arterials span the Town from east to west and north to south. Dove Road, classified as a minor arterial, is a two-lane facility that extends

from SH 114 and Southlake in the east to SH 170 and Roanoke in the west and is the primary east-west route for much of the Town. Existing traffic volumes range from 1,200 vehicles per day in the west to almost 6,000 vehicles per day in the east.

Davis Boulevard (FM 1938) is a principal arterial that connects Southlake and Keller to SH 114, where it terminates. Davis Boulevard is four lanes south of Dove Road and six lanes north of Dove Road. It carries about 6,000 vehicles per day.

A handful of local streets provide connectivity within the Town, including Solana Boulevard and Capital Parkway, which run from east to west, and Westlake Parkway and Sam School Road, which run from north to south. Solana Boulevard and Westlake Parkway each provide direct access to SH 114 frontage roads. Solana

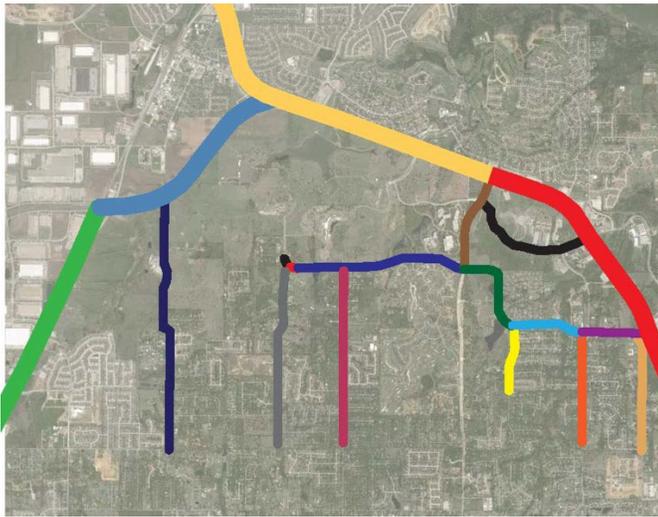


Figure 75a: Roadway Counts Map

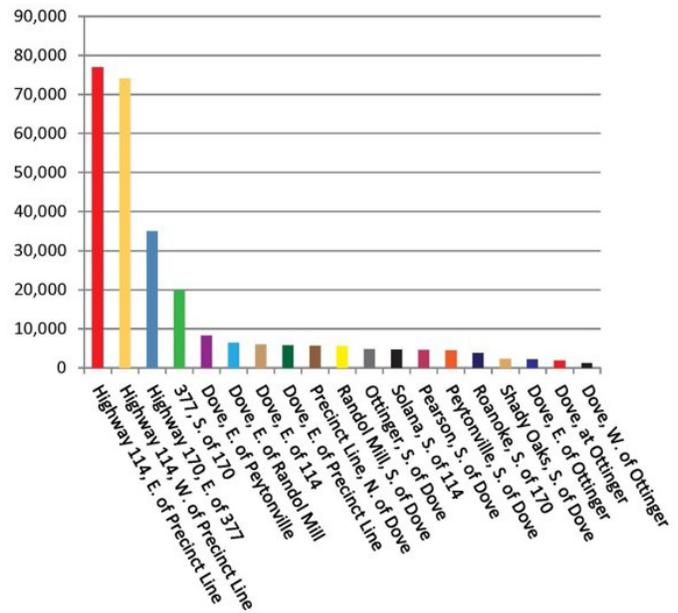


Figure 75b: Roadway Counts Graph

Boulevard carries about 5,000 vehicles per day, while Sam School Road carries less than 2,000 vehicles per day (traffic count data is not available for other local streets, but they are believed to carry less than 2,000 vehicles per day).

In addition to Precinct Line Road, several minor arterials connect Keller and Southlake to Westlake, including Pearson Lane, Randol Mill Avenue and Peytonville Avenue. Each of these streets terminates at Dove Road. Ottinger Road, also a minor arterial, enters Westlake from Keller to the south, where it merges with Dove Road and connects to SH 170 and the City of Roanoke. Roanoke Road is a major collector that connects Keller to SH 170 and Roanoke, passing through west Westlake. Each of these streets carries less than 5,000 vehicles per day. Currently, they are used predominant by residents of Keller and Southlake not only to access employment in Westlake but also as the path of least resistance to SH 114.

Figure 75a Roadway Counts Map and Figure 75b Roadway Counts Graph

(compiled from State of Texas, City of Southlake, and NCTCOG sources) displays historic trip volumes along key roadways coming into Westlake. The key roadways are Dove Road (the primary east/west link to SH 170 and SH 114 and destination of most roadways entering Westlake from Southlake and Keller), Roanoke (key roadway serving residential development in Keller), Ottinger (key roadway serving both Keller and Southlake), Pearson (also known as CR 4041 is another roadway serving Southlake and Keller), Davis Boulevard (a key throughway serving Southlake and Keller and connecting to SH 114), Randol Mill/Peytonville/Shady Oaks (all serving residential and commercial development in Southlake).

When considering Figure 75a and Figure 75b, it is noticeable that traffic volumes on Dove Road increase as Dove approaches SH 114 from Ottinger. This sequential increase in traffic volume supports the notion that Dove is a primary local collector, receiving in-flow traffic from Ottinger, Pearson, Precinct Line, Randol Mill, Peytonville, and Shady Oaks. It is also

evident that most of this incoming traffic is flowing east toward SH 114 and Southlake, once it hits Dove Road. This is largely an indication that the generally undeveloped state of land west of Westlake does not offer significant traffic destination potential.

The roadways flowing from the south (Southlake and Keller) into Westlake are carrying significant traffic volumes for two-lane roadways. With the exception of Shady Oaks, each averages approximately 5,000 cars per day (about half the capacity of a two-lane, undivided roadway). The traffic volume patterns on Dove Road suggest that many of these trips are flowing to Dove, turning east toward SH 114, thereby avoiding the traffic congestion of roadways southward (such as 1709). Also, accessing commercial areas south would require a left turn maneuver, which will likely experience time delays during peak hours. The trip north and east is all right turn maneuvers, which can be made even on a red light, accessing 1709 retail from the SH 114 side (again a right turn maneuver instead of a left turn maneuver with short storage lanes along 1709). Any future improvement to Dove will only make it more attractive as an easier and quicker route to the commercial offerings of 1709 and SH 114.

The largely undeveloped Westlake makes it easy to see the patterns of movement that will come into and circulate through the Town. This pattern suggests that north and south bound traffic flowing to and from Dove Road is a regional pattern that Westlake will have to accommodate as populations, and subsequent trip volumes, within the region grow. The earlier analysis of population growth suggests that Southlake and Keller will contain approximately 54,000 households by 2040. Assuming that half of those households will

generate traffic north of 1709 (Southlake Boulevard) and that 70% of those trips will flow north and southward to and from Dove road, that trip volume could be 187,000 trips flowing to Dove Road along six two-lane roadways. 187,000 trips would require the capacity of 26 lanes, meaning that each of these roadways would need to be a four-lane divided arterial. Further investigation of the south to north roadways reveals that only Pearson, Randol Mill/ Precinct Line, and Peytonville make through connections between Dove and 1709. Therefore, these streets will carry most of the future traffic that would flow north and south, to and from, Dove Road. If each of these streets became a four-lane divided arterial, the total trip volume they would bring in and out of Westlake is approximately 116,000 trips. Using 116,000 trips as a total volume flowing to and from Dove Road, it is clear that Dove Road can become the limiting factor. If Dove Road were widened to a six-lane divided arterial, the capacity of such a roadway would be right at 40,000 trips per day (provided dedicated turn lanes were also built at the key intersections). In addition, the 2004 Future Land Use Plan reveals that most of Westlake's present and future residential development will be built in places served by Dove Road. That contributes an additional 20,000 trips to the picture, a volume that could easily be served by a single four-lane divided thoroughfare. Therefore, the cost of additional lane capacity along north/south streets and Dove Road becomes a cost imposed on the citizens of Westlake by external growth that Westlake must bear.

Figure 76 shows 2012 trip volumes along SH 114 and SH 170. Note that the volumes decrease from east to west, indicating that trips are flowing to and from SH 114 from the intersections of Dove Road,

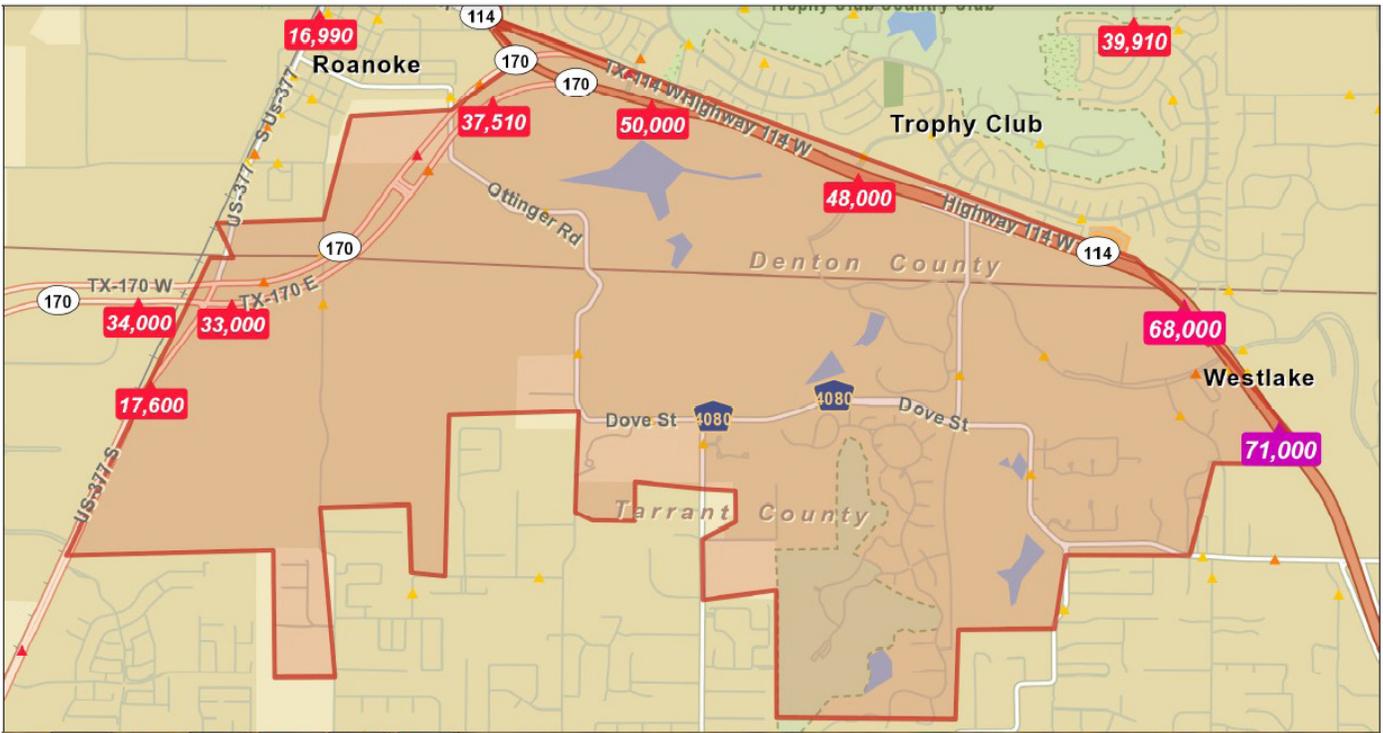


Figure 76: 2012 Trip Volumes

Solana, Precinct Line Road, and Trophy Club Boulevard. The drop in trip volumes from Dove to Precinct Line is 23,000 trips. Deducting the trip volume on Precinct Line (5,625 trips), Solana Boulevard (4,684 trips), Westlake/Trophy Club Boulevard (5,865), and a portion of the Dove Road traffic (3,200) accounts for this drop and reinforces the hypothesis that Westlake is the conduit through which externally generated trips are flowing to and from SH 114.

State of Texas information shows that 2012 traffic volumes along SH 114 in the vicinity of the 1709 intersection are right at 100,000 trips. At such density of trip volumes, this portion of SH 114 is experiencing peak hour congestion. Therefore, 100,000 trips should be viewed as a threshold for traffic along SH 114. At present, trip volumes along SH 114 at the Solana Boulevard intersection are at 68,000, leaving a surplus capacity of 32,000 daily trips.

In summary, Westlake today is functioning as a portal for trip access to SH 114 via Dove Road. At current levels of development, current road capacities are sufficient to accommodate current trip volumes. This portal function of Westlake is revealed by the decreasing pattern of trip volumes along SH 114 (east to west). The future residential growth of Westlake will leave some road capacity on Dove Road if Dove Road were widened to a four-lane divided arterial, but the externally generated trips will quickly overcome that surplus capacity between now and 2040. In addition, present volumes along SH 114 leave an approximate 32,000 increment of growth in trip volumes before the Westlake portion of SH 114 becomes subject to peak hour congestion.

### Bicycles and Pedestrians

The existing character and layout of Westlake doesn't lend itself to short bicycle and pedestrian work, school or shopping trips. Rather, walking and cycling in the

Estimate of Travel Demand from Existing Entitlements						
Residential - Productions			Non-Residential - Attractions			
Type	Units	Trips		Square feet	Employees	Trips
Single Family	2,410	23,000	Office	5,405,000	48,600	161,500
Multi-family	300	2,000	Retail	1,497,000	0	0
			Mall	1,630,000	3,400	57,900
			Hotel	424,000	3,400	63,000
<b>Total</b>	<b>2,710</b>	<b>25,000</b>				<b>282,400</b>

Figure 77: Estimate of Travel Demand from Entitlements

Town is done predominantly for health and recreational purposes, although some bicycle commuting may also take place. Most of the arterials, collectors and commercially-oriented local streets do not have sidewalks or parallel paths. Some have shoulders or wide outside lanes that could accommodate experienced cyclists.

Further, a majority of residential streets in Westlake do not have sidewalks. The Town's land development regulations do not require sidewalks for new development.

### Future Traffic Patterns: Elements of Change

Westlake's development potential, coupled with existing entitlements spell out a significant amount of growth for the Town in terms of population and employment. With growth comes change. The challenge for the Comprehensive Plan lies in developing a transportation system that accommodates growth and change while maintaining a high quality of life for residents.

### Travel Demand

An analysis was performed of Westlake's

existing entitlements and their implications for growth in population, homes, employment, and square footage of development. In turn, that growth was translated into potential travel demand based on commonly accepted methodologies.

The Town's existing entitlements translate into roughly 2,400 new single family homes and 300 new multi-family units. Generally speaking, homes generate about nine trips per day. These trips are referred to as "productions" because they begin at the home, ultimately destined for somewhere else, be it work, school, shopping, etc. New growth will result in about 25,000 new trip productions on a daily basis.

Existing entitlements will also result in about 46,000 new office employees, 3.1 million square feet of retail (including a mall) and about 3,200 hotel rooms. Combined, these uses will generate about 280,000 trips per day. These trips are referred to as "attractions" because they originate from elsewhere (i.e. home).

All told, Westlake will experience an increase of over 300,000 trips per day.

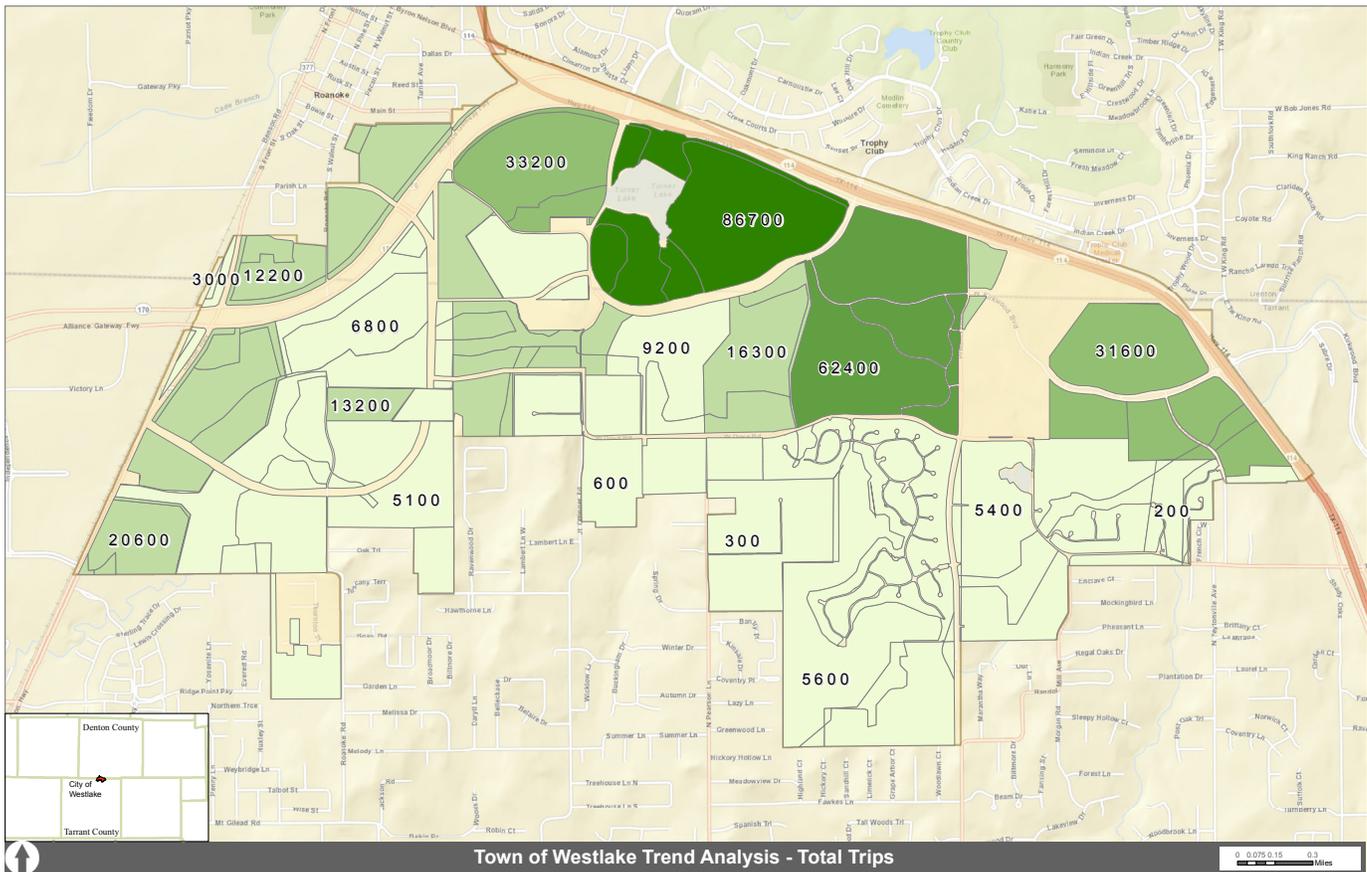


Figure 78: Travel Demand Map

Because of the overwhelming difference between trip productions and attractions, a vast majority of these trips will be drawn from places outside of the Town. Additionally, Southlake and Keller are anticipated to add another 187,000 trips at build-out, a significant share of which could be attracted to employment and shopping within Westlake and to gain access to SH 114 and SH 170. While the PD Plans (discussed in Existing Conditions) show connection between Westlake Parkway and Dove Road, the Town's current Land Use Plan does not show such connection, meaning that the total trip volume flows to Westlake Boulevard via four points of connection to the two lane service roads of SH 114. Therefore, the potential for significant congestion is very high.

### Transportation Impacts

An analysis of travel demand clearly indicates that Westlake's existing street network is wholly insufficient to handle travel demand generated by new growth and development. The existing street network, which is predominated a handful of two-lane undivided roads, simply lacks the capacity.

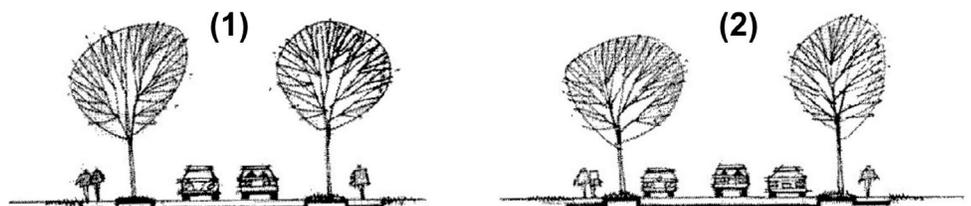
As many as three to five new four-lane divided roads could be needed to accommodate traffic in both north/south and east/west directions.

There are no other options to accommodate travel both within the Town and from elsewhere in the region. There are no plans to add local or regional transit service, and there are few facilities to accommodate bicycle and pedestrian trips.

To understand the lane capacity required to accommodate such trip volumes, the Institute of Transportation Engineers (ITE) has established planning standards for Average Daily Trips (ADT) street capacity. This information is presented in Figures 80a-d Capacity Diagrams and suggests that a capacity of 40 lanes (10 four-lane divided thoroughfares) is needed to move the 308,067 trips. These lanes must comprise a traffic system that moves vehicles in and out at multiple points in ingress/egress. However, the bifurcated residential network (flowing to Dove Road) and commercial network (serving the commercial area without direct connection to Dove Road) makes creation of a coherent overarching system very difficult.

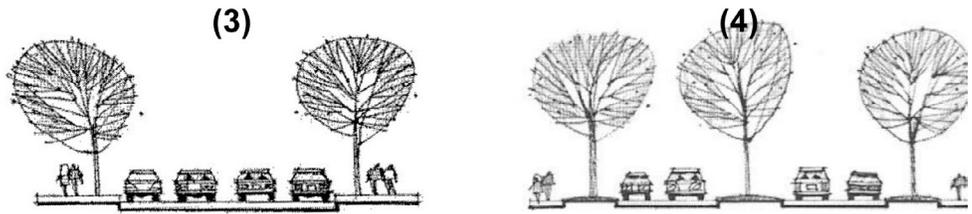
Location	Lanes	Trips Per Day			
		Current Volume	Capacity	Estimated Demand	Deficit
<b>East of Precinct Line Road</b>					
Dove Road	2	6,000	10,000		
Solana Boulevard	4	4,200	36,000		
	6	10,200	46,000	150,000	-114,200
				to	to
				200,000	-164,200
<b>West of Precinct Line Road</b>					
Dove Road	2	2,200	10,000		
Capital Parkway	2	2,000	10,000		
	4	4,200	20,000	125,000	-109,200
				to	to
				175,000	-159,200
<b>South of Dove Road</b>					
Roanoke Road	2	3,800	10,000		
Ottinger Road	2	2,000	10,000		
Pearson Lane	2	4,600	10,000		
Precinct Line Road	4	6,200	36,000		
Randol Mill Ave	2	6,100	10,000		
Peytonville Avenue	2	4,500	10,000		
	14	27,200	86,000	150,000	-91,200
				to	to
				187,000	-128,200
<b>North of Dove Road</b>					
Roanoke Road	2	3,800	10,000		
Ottinger Road	2	1,900	10,000		
Westlake Parkway	4	2,000	32,000		
Precinct Line Road	6	5,600	48,000		
Sam School Road	2	1,800	10,000		
	16	15,100	110,000	200,000	-105,100
				to	to
				240,000	-145,100

Figure 79: Street Capacity at Build-Out



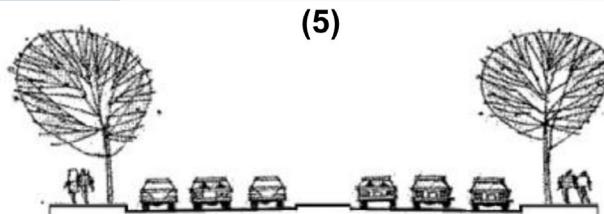
TYPICAL ROADWAY CAPACITIES (ITE)	
Cross-Section	General Maximum Two-Way ADT
(1) Two-lane Urban	8,000 to 10,000
(2) Three-lane Urban	14,000 to 18,000
Four-lane Undivided Arterial	15,000 to 25,000
Four-lane Divided Arterial	30,000 to 41,000
Six-lane Divided Arterial	45,000 to 60,000
Four-lane Expressway	35,000 to 60,000
Four-lane Unmetered Freeway	65,000 to 90,000

Figures 80a-80d: Capacity Diagrams



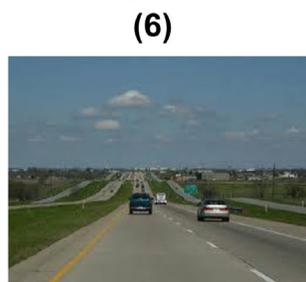
**TYPICAL ROADWAY CAPACITIES (ITE)**

Cross-Section	General Maximum Two-Way ADT
Two-lane Urban	8,000 to 10,000
Three-lane Urban	14,000 to 18,000
(3) Four-lane Undivided Arterial	15,000 to 25,000
(4) Four-lane Divided Arterial	30,000 to 41,000
Six-lane Divided Arterial	45,000 to 60,000
Four-lane Expressway	35,000 to 60,000
Four-lane Unmetered Freeway	65,000 to 90,000



**TYPICAL ROADWAY CAPACITIES (ITE)**

Cross-Section	General Maximum Two-Way ADT
Two-lane Urban	8,000 to 10,000
Three-lane Urban	14,000 to 18,000
Four-lane Undivided Arterial	15,000 to 25,000
Four-lane Divided Arterial	30,000 to 41,000
(5) Six-lane Divided Arterial	45,000 to 60,000
Four-lane Expressway	35,000 to 60,000
Four-lane Unmetered Freeway	65,000 to 90,000



**TYPICAL ROADWAY CAPACITIES (ITE)**

Cross-Section	General Maximum Two-Way ADT
Two-lane Urban	8,000 to 10,000
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Four-lane Divided Arterial	30,000 to 41,000
Six-lane Divided Arterial	45,000 to 60,000
(6) Four-lane Expressway	35,000 to 60,000
(7) Four-lane Unmetered Freeway	65,000 to 90,000

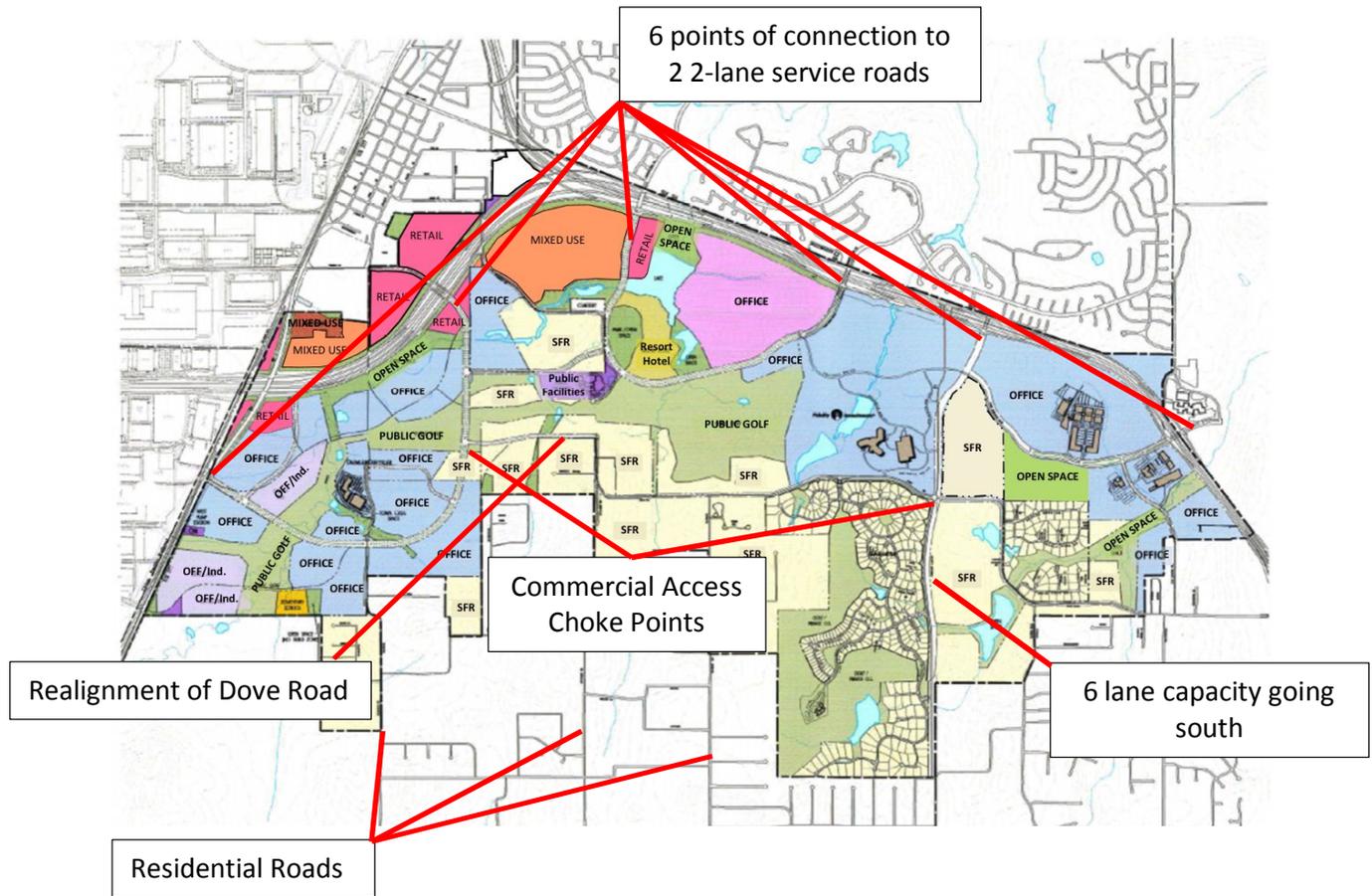


Figure 81: 2004 Future Land Use Plan

To understand how the projected trip volumes will affect circulation patterns in Westlake it is important to view the current Thoroughfare Plan as illustrated in Figure 81. The 2004 Future Land Use Plan presents several important characteristics including:

- The realignment of Dove Road:** Note in Figure 81, that Dove Road, which currently extends north from Ottinger to a connection with SH 170, turns west from Ottinger and connects with a new commercial road. This disconnects Dove Road from commercial use. Therefore, growing populations, seeking to take advantage of Westlake's commercial offerings will flow to Dove Road, along Ottinger, Pearson, Randol Mill, Precinct Line, and Peytonville but will be unable to continue north without flowing to the east intersection with the new commercial street or flowing to Precinct Line Road. Therefore, convenient access to the commercial offerings of Westlake will be determined by the capacity of Dove (earlier determined to be limited) and the capacity of Precinct Line and/or the new commercial road. This could make Dove Road, a primary residential collector, have to function as a regional arterial. In addition, Westlake Academy, which is now served by the more residential/pastoral Dove Road will, in the future, be served by the commercial roadways. This significantly augments the associations of Westlake Academy with the residential fabric of Westlake.
- Six points of connection to two two-lane service roads:** Note that trips flowing to and from the commercial district of Westlake, separated from the residential

areas of Westlake by the open space area, are served by six access points. Assuming that each access point is the beginning of a four-lane divided arterial, the combined lane capacity is 174,000 trips. The trip generation of that portion of commercial land uses served by these six points of connection is greater than the above stated capacity, meaning that intersection improvements will likely be required in order to expand capacity (such as dedicated turn lanes). Transportation Impact Analyses (TIA) should be done in the future to determine when such intersection improvements are necessary.

The six points of connection are served by two two-lane service roads linking to off/on ramps at Solana, Precinct Line Road and Westlake Boulevard. This could lead to congestion on the service roads as traffic from commercial areas to the west of Westlake Boulevard seek to flow eastward to the Westlake Boulevard on-ramp.

It seems that most of the traffic issues confronting the future are solvable through proper engineering and capacity enhancement. Although, the population of Westlake will have to become accustomed to lower levels of intersection service, which is typical of urban level development.

- **6 lanes of capacity going south:** Perhaps the greatest challenge is the focus of southward moving traffic to Precinct Line Road. A six-lane divided arterial can be expected to carry a planning maximum of 35,000 to 40,000 vehicles per day. As stated earlier, the potential number of vehicles moving from south to north to either access SH 114 or the commercial offerings of

Westlake could exceed this planning capacity. Certainly convergence of all north bound movement from Keller, Southlake, Watauga, and northern North Richland Hills, at the intersection of Dove Road and Precinct Line Road, is a potential choke point in the local road system.

## Issues and Opportunities

Transportation is an important element of the Town of Westlake's future. The Comprehensive Plan should give due consideration to the Town's transportation systems and characteristics as they evolve over time. To that end, this assessment yields several observations regarding transportation issues and challenges:

- **Street Network Capacity** – The existing street network clearly lacks sufficient capacity to accommodate the increase in travel demand associated with entitled development. In addition to improvements to existing streets, such as Dove Road, several new facilities will need to be added between now and build-out.
- **Freeway/Interchange Capacity** - A majority of trip attractions generated by new non-residential development will emanate from outside of the Town. Many of these trips will access Westlake via SH 114. Additionally, the Town will continue to experience pass-through from trips originating in communities to the south that are destined for SH 114. This has direct implications for SH 114 and associated interchanges and their ability to handle significant increases in traffic volume.
- **Connectivity** – Transportation networks in which all development connects directly to a few arterials is a very

inefficient system. As Westlake develops and expands its transportation network, the Town must establish a robust, well-connected street network that integrates arterials, collectors and local streets.

- **Opportunity to Shape Growth** – Given that a majority of the Town is yet to be built, there exists a golden opportunity to shape it in the desired pattern and form from the outset, rather than try to “fix” existing problems from a reactionary stand-point. This opportunity to shape future growth includes the design of the future transportation system.

In conclusion, it is clear that the traffic picture of the future will be dramatically different than it is today with Dove Road and Precinct Line Road functioning as regional arterials. These roads are also the major identity roads of Westlake. However, their function will move toward “pass through” rather than “arrival”, making the assertion of Westlake’s unique identity and form more difficult. In addition, the intersection of Dove Road and Precinct Line Road emerge as a significant choke point at the very center of the Town. Solutions to this potential problem, which seek to increase its capacity, can further regionalize the road identity and, thereby, overpower the pastoral self-image that Westlake nurtures. Solana Boulevard/ Westlake Boulevard will serve an immense amount of commercial square footage as well as the Westlake Academy (potentially separated from the residential fabric of the community). The visual character of this roadway is driven by its capacity needs; just like Dove/Precinct Line Roads, capacity increases a more regional town

identity. Therefore, preserving a town identity when faced with regionalization pressures will be a significant planning challenge going forward.

# 5. INFRASTRUCTURE CAPACITY ASSESSMENT

## Water Consumption Background

The Town of Westlake purchases its potable water from the City of Fort Worth. The agreement states that the Town of Westlake can increase its water consumption by no more than 1.35 times the maximum day demand of the previous year in any one day. The Town of Westlake is responsible for the distribution of potable water while its purveyor responsibility is to deliver the treated potable water via their transmission system.

The Town's current average daily use is reportedly about 1,200 gals per day per person, with a consumption break down of about 70% residential use and 30% non-residential. By comparison, Southlake's consumption is in the neighborhood of 600 gallons per day per person, while the Town of Highland Park's consumption is approximately 400 gallons per day per person. Historical consumption rates for the Town of Westlake from 2009 to 2013 are shown in Figure 82 and Figure 83.

### Average Daily Use

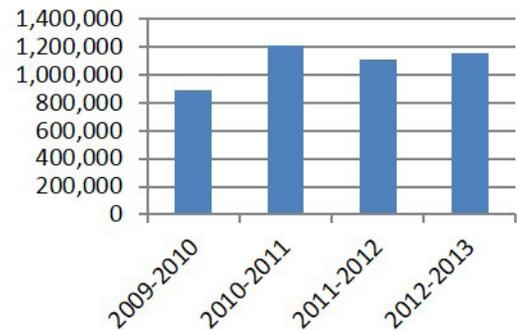


Figure 82: Westlake Average Daily Water Use

### Maximum Day Demand

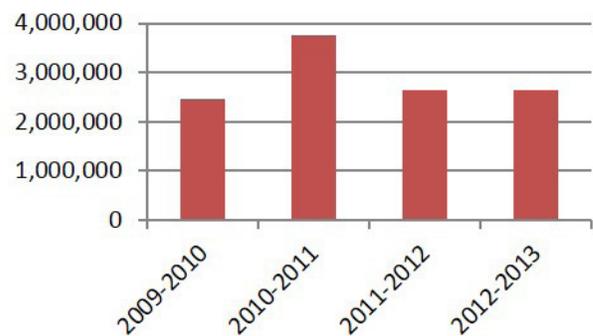


Figure 83: Westlake Maximum Day Water Demand

## Estimating Future Water Consumption

The cost of developing new water infrastructure will be directly related to water demand and water availability. A prudent water demand projection is necessary in order to set capital outlays that can be met by the Town, its purveyors, and the development community. Based on zoning and PDs, the future population for the Town could reach around 7,750 at built-out. At the current average daily demand in the vicinity of 1,200 gallons per day per person, the average daily demand could be about 9.3 million gallons, a very high and unlikely sustainable rate.

A more reasonable approach to estimating future water consumption, based on commonly accepted standards for water consumption rates, can be used to set a more sustainable rate. The means to estimate those would be:

- 350 gallons per single-family dwelling unit (3.3 persons per unit based on Census data)
- 250 gallons per multi-family dwelling unit (2.1 persons per unit based on Census data)
- 20 gallons per office employee
- 25 gallons per industrial employee
- 150 gallons per 1,000 square feet of retail space
- 150 gallons per 1,000 square feet of mall space
- 200 gallons per hotel unit

Based on these rates, the resulting water consumption on a per land use basis at built-out would yield the average daily consumption rates shown in Figure 84.

Land Use	Gallons Per Day
Single Family Residential	760,043
Multi-Family Residential	74,250
Office	972,920
Industrial	0
Retail	202,145
Mall	220,050
Hotel	635,940
Open Space	0
<b>Total</b>	<b>2,865,348</b>

Figure 84: Yield at Build-Out Table

The above future demand analysis amounts to 29.12% residential and 70.88% non-residential, an inverse of the current 70% residential to 30% non-residential. Current residential water use may include substantial irrigation to support lush landscaping, high water use fixtures, other amenities, and the like that contribute to high water demand relative to total population, which results in high water use on a per capita basis.

The Town's 2012-2013 daily average water use was 1,159,871 gallons with approximately 811,910 gallons being residential use. At build-out, based on the above methodology, the average daily water demand is 2,865,348 gallons; if the residential use is to be at roughly 29%, the residential average daily use would be 834,293 gallons. However, the population served would be 7,750 versus today's roughly 1,000. Therefore, the challenge for the future is to understand how to reduce high residential water use and how to maintain such reduction. Water conservation, in combination with other best management practices, should be a high priority for the Town.

## Wastewater

The Town of Westlake has an agreement in place with the Trinity River Authority (TRA) in which TRA receives the Town's wastewater and conveys it to TRA's wastewater treatment facilities. The Town is responsible for collecting the wastewater in collection mains within the Town limits. The Town's topography does not always accommodate gravity flow through its wastewater collection mains, so pumping of wastewater to overcome topographic obstacles is required. The Town owns and operates three lift stations: the Deloitte Lift Station, Fidelity Lift Station, and Carroll Lift Station that are utilized for pumping wastewater. The Deloitte and Fidelity Lift Stations are expandable and capacity can be added as the Town grows. The wastewater from Westlake ultimately flows into another lift station owned by TRA, the Kirkwood Lift Station, located in Southlake on North White Chapel Boulevard north of Wingate Lane. From there it is conveyed to TRA's Denton Creek Regional Wastewater System treatment plant in Roanoke.



Figure 85: Town of Westlake's Deloitte Lift Station



Figure 86: TRA's Kirkwood Lift Station, located in Southlake

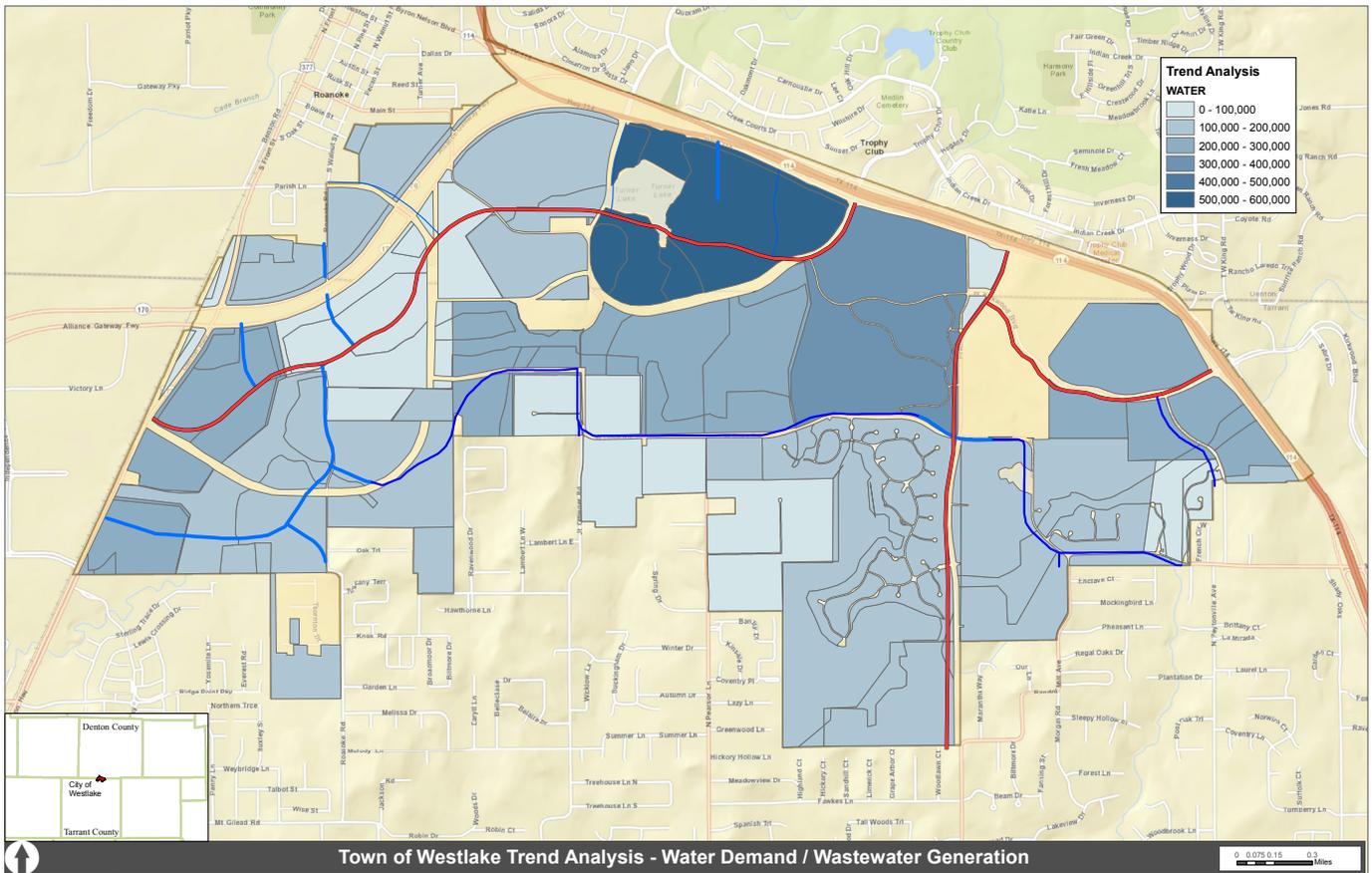


Figure 87: Water Demand and Wastewater Generation Map

An approximate distribution of water demand at build-out across the Town is shown in Figure 87.

The generation of wastewater will closely follow where the water demand is shown in Figure 87. Current wastewater flows are indicative of high irrigation use as water usage (70% residential, 30% non-residential) is much greater than wastewater flows. Historical wastewater flows for the Town have normally been less than 150,000 gallons per day (while 2012-2013 average water consumption was 1,159,871 gallons per day) with the highest wastewater flows recorded occurring during July and August

of 2011 at only around 211,000 gallons per day. However, if in the future, non-residential water use is 70%, wastewater flows will increase. Westlake's growth impact on the TRA system may be less than that of other communities that are served by the same system. At any rate, TRA must have time to expand their system, if required. Based on the Town's agreement with TRA, Westlake's wastewater flows shall not exceed 3.5 times the Town's estimated average daily flow for more than a 24-hour period. Therefore, it is key that the Town report its estimated average daily flow and estimated growth projections to TRA in a timely manner.

## Stormwater

The stormwater runoff within the Town of Westlake drains within two major watersheds: the Marshall Branch watershed and the Kirkwood Branch watershed. Each of the watersheds' main branches also has a natural system of tributaries. Marshall Branch and its three major tributaries, MB-3, Paigebrook Creek, and Golf Course Creek drain the western and central portions of the Town. Kirkwood Branch and its tributary, Higgins Branch, drain the eastern portion of the Town.

Marshall Branch has a wetland complex in its upper reach west and upstream of Roanoke Road. Marshall Branch is also wooded downstream of Ottinger Road and upstream of Lake Turner. Lake Turner is on Marshall Branch and is located between SH 114 and Ottinger Road. Some erosion of the natural banks has occurred on Marshall Branch downstream of the spillway. Both Tributary MB-3 and Paigebrook have some jurisdictional ponds. Paigebrook Creek also includes a wooded stream corridor south and upstream of Dove Road. Golf Course Creek has three jurisdictional ponds. It also includes a hardwood forest downstream and north of Dove Road (a distinct and diverse wetland along and within the Fidelity Investment tract, to the north of a pond). There are also other isolated and fringe wetlands associated with the ponds.

Kirkwood Branch is heavily wooded from SH 114 upstream to Dove Road. Higgins Branch's entire reach within the Town, from its confluence with Kirkwood Branch to upstream and south of Dove Road, is also heavily wooded. Kirkwood Branch also has jurisdictional ponds on its upstream reaches. A fringe wetland is located on the most southern pond of Kirkwood Branch.



Figure 88: Lake Turner Spillway



Figure 89: Marshall Branch Erosion

## Floodplains

The flood zones mapped in the 2000 Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps include approximately 563.3 acres in the 100 year flood plain within Westlake. When the Marshall and Kirkwood Watersheds become fully developed, stormwater flows will increase by about 30%. Development that occurs in communities upstream of Westlake will also increase the flooding potential.

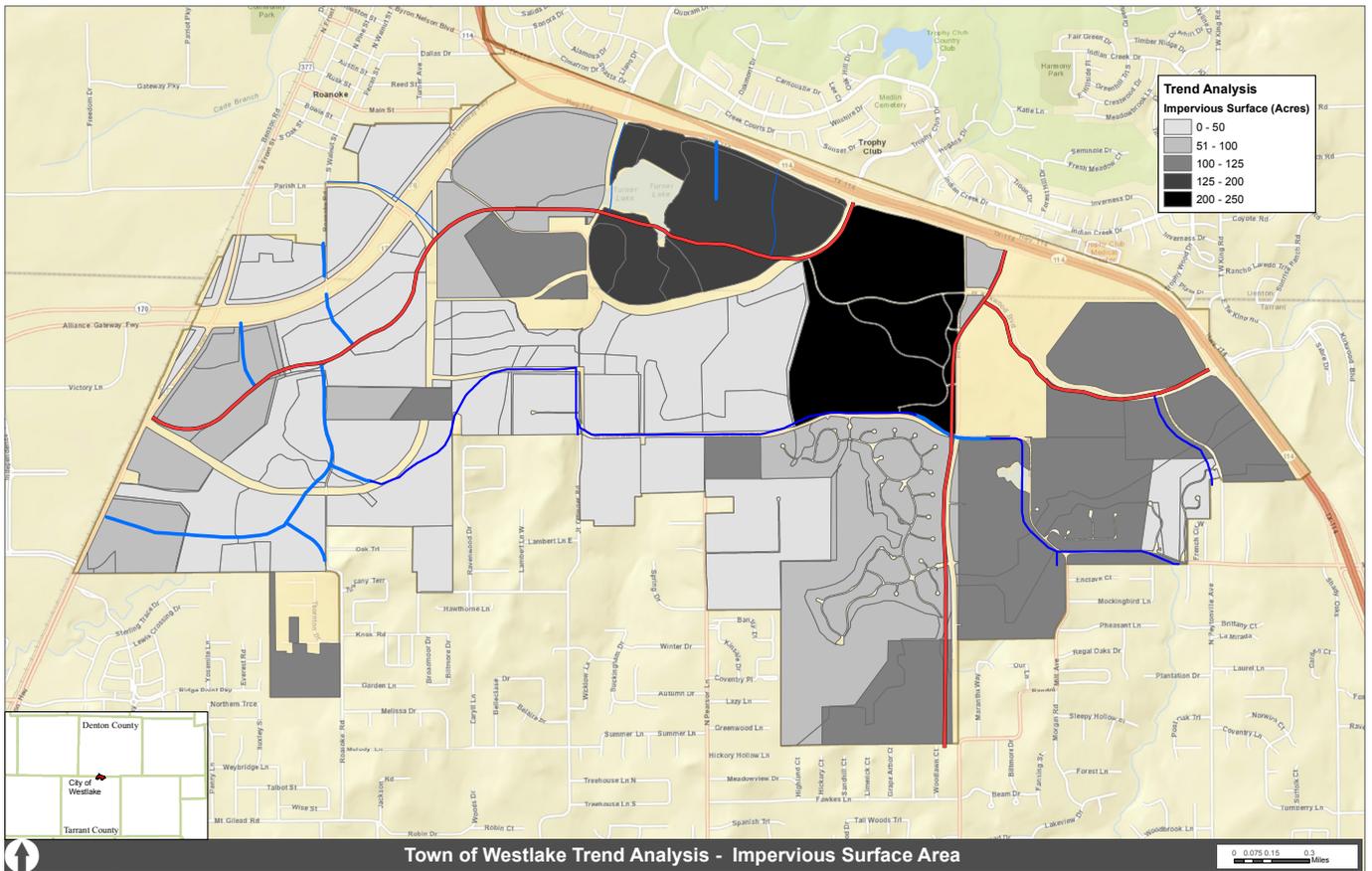


Figure 90: Impervious Surface Area Map

### Stormwater Runoff Management

Future development will increase impervious areas that will contribute to increased stormwater runoff. Based on land uses allowed by zoning and PDs entitlements, the intensities of impervious areas are shown in Figure 90.

Although the Town of Westlake has man-made ponds on its natural creeks, as well as other urban type storm drainage infrastructure within the Town, such as spillways, culverts and storm drain inlets, it enjoys a picturesque and seemingly dominant natural system for managing stormwater runoff. Initially, ranch management practices, and now more current land development, have altered the native Cross Timbers and Prairies forestation and vegetation in some

areas. Turner Lake's dam configuration has been modified from its original form and now has an emergency spillway for larger flows. Golf Course Creek currently has attenuation via two large existing stock tanks, as well. Therefore, similar and even more aggressive detention practices should be implemented in the future that will be in concert with upstream development and development within the Town. Such practices should be used to mitigate flooding without increasing flood plain areas, flood elevation, and the erosion of natural stream banks.

# CONCLUSION

**Part One: Assessments** has revealed the current and projected population growth rate, existing conditions, land developability based on natural conditions and entitlements, existing and expected transportation and circulation conditions, and existing and projected infrastructure capacity; all of which present opportunities and constraints for the Town of Westlake. The following key items are considered as the Planning Team presents the Framework Plan, or Phase 2 of the Planning Process:

## Population and Demographics

- The projected population potential of around 7,500 people.
- The population capacity of only 6,927 people at build-out.
- A mostly older (40-84 years of age) population demographic will continue to dominate Westlake, creating the "Grandparent Effect" at Westlake Academy.

## Existing Conditions

- There exists two different development patterns: North/South and East/West as a result of development history.
- There exists two cities: one more residential and one more commercial. There exists two road systems: one serving mainly residential development and one serving mainly commercial development, both with distinctly different character.
- Commercial development is essential to closing the tax gap at current tax rates.
- There is potential for future home value diversification.
- Westlake appears to be in the center of an economic region, an area much

larger than its political Town boundaries.

## Development Suitability

- Waterways, lowlands, and steep slopes are very sensitive to development.
- There is around 18 million square feet of commercial entitlements in PDs that could significantly change the functionality and character of the Town.
- There is much potential to accommodate both entitlements and natural systems in land located within PDs.

## Transportation and Circulation

- There is an estimated 300,000 internal trips per day.
- Traffic from the south into Westlake has the current option of Dove Road, which has low capacity.
- Streets in the 2004 Land Use Plan suggest choke points and serious congestion at build-out.

## Infrastructure Capacity

- Water usage is at an unsustainable rate.
- Detention capacity needs to be examined with consideration of current entitlements.
- Timing of non-Town suppliers must be addressed.

The assessments set forth in this report provide a foundation upon which the Planning Team and the Westlake community will manifest the Framework Plan. Among the most challenging of goals in the next phase is the need to reconcile the implications of inevitable growth and the clearly expressed desire to maintain the current pastoral setting of Westlake. It will be with great agility that such a reconciliation is made, and from which, a useable Comprehensive Plan will emerge.





## **PART TWO: GOALS AND CITIZEN PRIORITIES AND FRAMEWORK PLAN**

### **INTRODUCTION**

**The Goals and Citizen Priorities and Framework Plan** can be viewed as guiding documents that direct the planning work that follows. Goals and Citizen Priorities provide the Planning Team with:

- **An understanding of what the current residents of Westlake value and see as important distinctions separating Westlake from other cities and townships.**
- **An understanding of what the residents of Westlake determine worthy of preservation.**
- **An understanding of the level of change that residents of Westlake are willing to embrace.**
- **An understanding of resident preferences for how planning issues confronting the Town should be approached.**
- **An understanding of “town” as held by the current residents of Westlake.**
- **An understanding of the relationship between residential development (present and future) and forthcoming non-residential development as entitled by current zoning.**

- **An understanding of how the residents and property owners of Westlake view their connection with, and relationship to, neighboring communities.**

Once the **Goals and Citizen Priorities** were established by bringing together inputs from citizen participants in the Public Planning Workshop #1, a **Framework Plan** was produced to visually explain how these guiding statements would impact the physical form of Westlake, which was presented in Public Planning Workshop #2. The **Framework Plan** is a diagrammatic portrayal of how goals and objectives would likely be manifest using a graphic language of districts, linkages, focal points, edges, transitions, and hierarchies. The **Framework Plan** is a template that reveals:

- **The relationship between residential and non-residential components of the community that fulfills the understanding of “town”;**
- **The pattern of community districts ranging from pastoral to urban relative to the major views of the Town, thereby assuring preservation of visual character.**
- **The connection of residential and commercial areas that naturally accommodates the demand for movement in a town-centered system;**
- **The distribution of barriers and separations meant to protect and preserve pastoral areas;**
- **The transition from pastoral to urban character that softens the effects of change; and**
- **The sequence and structure of focal and district elements in a way that creates a core town area while also establishing a location for both pastoral and urban areas to support it.**

The following text explains the **Goals and**

**Citizen Priorities and Framework Plan** process and products.

## **GOALS AND CITIZEN PRIORITIES**

The purpose of having a planning phase related to establishment of goal statements is to assure that the plan developed through this process is firmly founded upon concerns of the citizenry so that it can more clearly promote the public health and welfare.

Public Planning Workshops #1 and #2 were held at Westlake Academy on the evening of January 11th and March 5th, 2014. During Workshop #1 (January 11th, 2014), inputs necessary to assemble Goals and Citizen Priorities were gathered. The process through which necessary inputs were gathered included small discussion groups (each with a geographic focus) discussing issues flowing from the consultant's presentation of present and emerging conditions/trends, as well as response to specific questions aimed at stimulating comment on perception of place, future change, and desired quality of life outcomes. Upon conclusion of the presentation, workshop attendees sat in breakout groups identified by their geographic area of concern (Figure 91) to discuss the implications of the presented material and to give their opinions/preferences as to how such emerging conditions should be manifest in the future Town.

Key comments from the discussions were documented on flip charts by steering committee members (Figure 92). The charts were presented to the gathered general assembly of participants at the close of the evening session. There were five separate discussion groups and together they produced 116 comments.

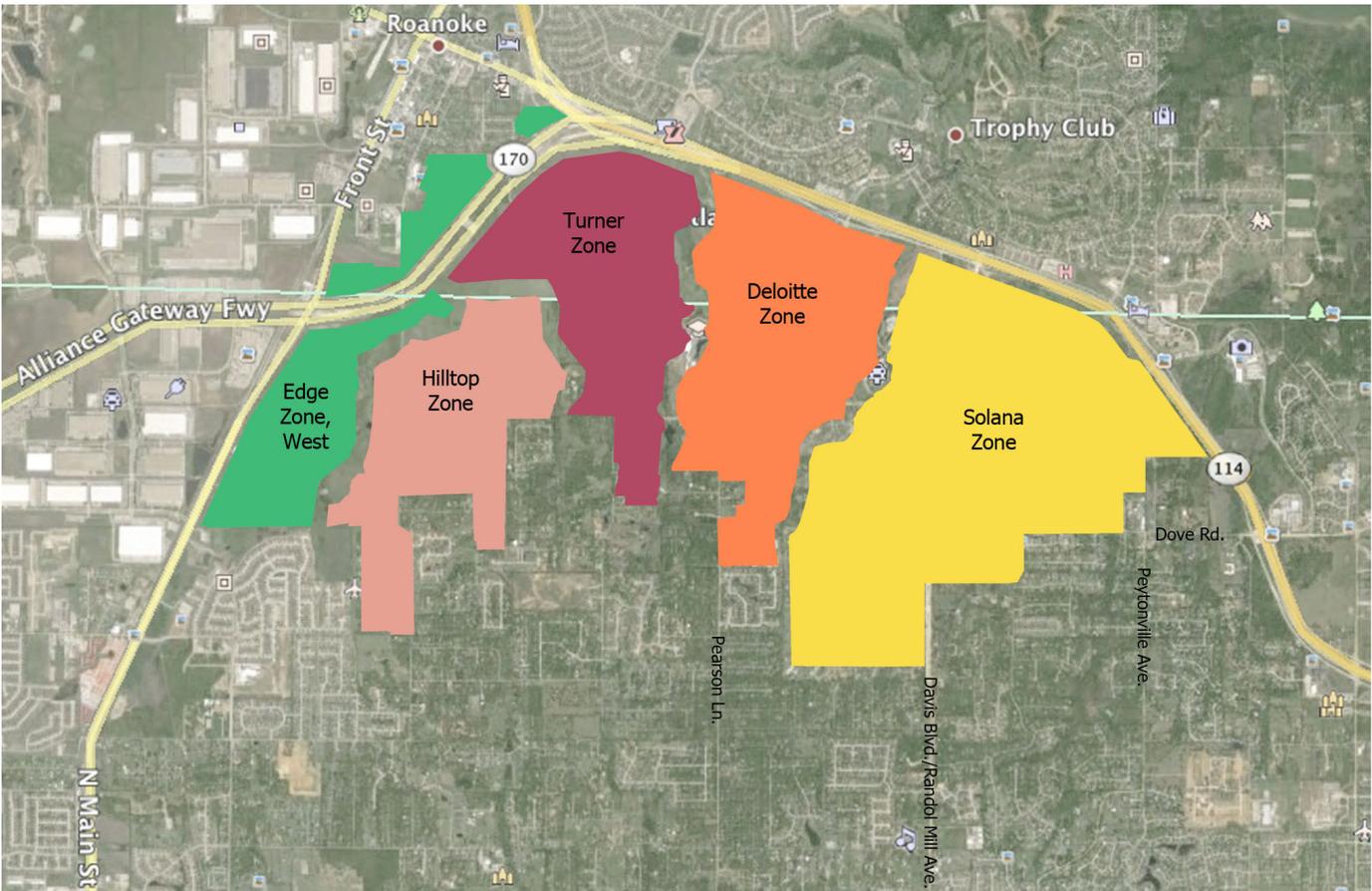


Figure 91: Workshop #1 Break-Out Group Areas

Upon completion of the meeting, the citizen comments, as reflected on the flip charts, and all other notes made at the general assembly were collected, reviewed and distilled into goal statements by the Planning Team. This process (described below) is called the **TRIO** method. This method is designed to yield a set of statements consistent with the comments provided, listed at a similar level of generality and are, to the extent possible, mutually exclusive.

### TRANSLATING WORKSHOP COMMENTS TO CITIZEN PRIORITIES

The process employed to distill the wide spectrum of 116 community comments into a more concise list of mutually exclusive statements at a similar level of generality is called the **TRIO** method. The

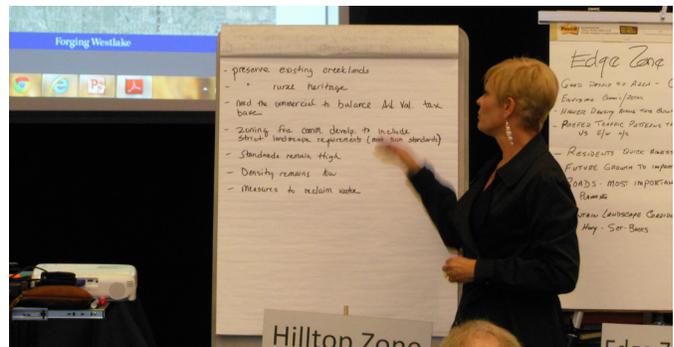


Figure 92: Workshop #1 Flip Chart Presentation

acronym “TRIO” stands for:

- **Themes:** Themes are unifying characteristics or characterizations of place, setting, and/or community that emerge in the breakout groups. These are often characterizations of outcomes that may be suggested by various descriptive terms or phrases. For example, the phrase “predominantly undeveloped”, the term “agricultural”, and caution to “preserve rural heritage” all reflect a thematic passion and desire for preserving rural-ness as a feature of the future Town.
- **Repeats:** Repeats are particular phrases or words that are simply repeated by more than one breakout group. For example, the term “picturesque” appears on the flip chart of more than one group, indicating that there is a common preference of a composed, natural setting.
- **Input Indicators:** Input Indicators are statements of problems or conditions that call for remedial action set in motion by goals. The desire is for a different outcome than the problem statement or condition statement describe. For example, complaints that Westlake is “not easily accessible” or that Westlake has “cut through on back roads” or Westlake has “access issues” suggests that people want better access that does not encourage cut through traffic.
- **Output Indicators:** Output Indicators are statements of desired outcomes or conditions that reflect remedial action set in motion by goals. Output Indicators suggest goals that are required to attain a stated outcome. For example, statements like “maximize and increase value of lake” suggest goals calling for shared connection between community lakes and

residential areas, public parks, trails or development in general.

Through the TRIO method, each of the 116 community comments are considered and ultimately distilled into 75 statements called **Citizen Priority Statements**.

Figure 93 lists each of the 116 Workshop generated comments and identifies whether they are a Theme, Repeat, Input Indicator, or an Output Indicator. To the left of each statement is a code that indicates the discussion group in which the statement was recorded. **TD** indicates the Turner Group (the group focusing on the area generally lying between the two creeks flowing into Turner Lake); **SO** indicates the Solana Group (the group focusing on areas in the east most portion of Westlake along SH 114); **HT** indicates the Hilltop Group (the group focusing on areas generally east of Marshall’s Branch); **DL** indicates the Deloitte Group (the group focusing on areas generally lying between the eastern most creek flowing into Lake Turner and the creek flowing into the lakes west of Fidelity Investments); and **EZ** indicates the Edge Zone West Group (the group focusing on areas generally west of Marshall’s branch and fronting SH 170).

Note that the **Themes** are mostly about recognition of the natural, pastoral, rural character of Westlake and the desire for a town core. Also note that the **Repeats** are mostly about the views and preservation of the character of Westlake as understood through these views. **Input Indicators** reveal concern for addressing the potentials of change and making sure that needed systems and protections are provided. Finally, the **Output Indicators** show aspirations for particular amenities, features, outcomes, and conditions that will improve life and value in Westlake.

	Theme	Rept	Inpt	Oupt
TD1: Picturesque		X		
TD 2: Predom undeveloped	X			
TD 3: Agricultural	X			
TD 4: Education center				X
TD 5: Not easily accessible			X	
TD 6: Cut through "Back Road"			X	
TD 7: Lake under appreciated			X	
TD 8: Cemetery			X	
TD 9: Vistas	X			
TD 10: Rolling Hills	X			
TD 11: Slower pace				X
TD 12: Juncture of 170/ 114 key intersection				X
TD 13: Do want commercial along frontage and buffer between school and residential				X
TD 14: Do want more land for the school especially				X
TD 15: Do want athletic fields – school/ town possible buffer				X
TD 16: Do want walking/ biking trails				X
TD: 17: Do want high design standards				X
TD 18: Do want open space, large lot sizes to allow use of topography				X
TD 19: Don't replicate everything around us "enclave"			X	
TD 20: Don't want intense uses that destroy pastoral community			X	
TD 21: Don't want warehouse/ light industrial			X	
TD 22: Don't want apartments and high density			X	
TD 23: Maximize and increase value lake				X
TD24: Use lakes for Detention (Read: centralize detention)				X
TD 25: Use lakes for natural conservancy				X
TD 26: Use lakes for trails				X
TD 27: Want traffic around and not through it			X	
TD 28: Traffic congestion zone –pay toll...speed bumps				X
TD 29: Make Westlake better without degrading it	X			
TD 30: Fire service (shared)				X
TD 31: Town center – HUB	X			
TD 32: Dog park				X
TD 33: Golf course				X
TD34: Park area-play ground...likes passive (???) parks				X
TD 35: Arboretums				X
SO 1: Like open space	X			
SO 2: Like 2 lane roads				X
SO 3: Like quiet	X			
SO 4: Impressed by quality	X			
SO 5: Dove road getting worse...need E&W artery			X	
SO 6: Like pastoral setting		X		
SO 7: Viewed as healthy mix of single family...commercial				X
SO 8: Potential overbuilt of commercial			X	
SO 9: Should have more single family on Maguire...property to reduce traffic (no retail) or office traffic			X	
SO 10: Access issues			X	
SO 11: Have property value issues along Dove due to traffic already			X	
SO 12: Roundabouts needed			X	
SO 13: More arteries needed			X	
SO 14: Set aside right of way now to plan for the future				X
SO 15: New undeveloped 200 acres. Do this in non-Solana areas			X	

Figure 93. Citizen Workshop Comments TRIO

	Theme	Rept	Inpt	Oupt
SO 16: Make it tough for traffic to get through town in order to keep tranquil feel of Westlake				X
SO 17: More retention ponds...use as a property value increase & amenity & reduce flooding				X
SO 18: Trails				X
SO 19: Sidewalks on perimeter only, to reduce theft			X	
SO 20: Connectivity of trails				X
SO 21: No apartments			X	
SO 22: No public transportation (Read: there isn't public transportation)			X	
HT 1: Density of houses to be built is less than 1 ac./ area – it would have to be consistent with the rest of Westlake (average 1 ac. with the development)				X
HT 2: Rural space green space		X		
HT 3: Need for office complex uses to stay with a "campus setting" and low density				X
HT 4: Need to plan for mass transit- preserve space for transit				X
HT 5: Vintage, country, space – love these open rural relaxed	X			
HT 6: Traffic would be an impact (Roanoke Rd. should stay 2 lanes)			X	
HT 7: Commercial should stay close to 114				X
HT 8: 10% of development should be green space, parks, trails, etc.				X
HT 8a: Hike and bike connect to center of Westlake				X
HT 9: Sidewalks in develop areas				X
HT 10: Split level between car traffic and bike (Read: separate vehicular and commercial traffic)				X
HT 11: "Roundabouts", pan for them				X
HT 12: Preserve existing creek lands				X
HT 13: Preserve rural heritage	X			
HT 14: Need commercial to balance Ad Val Tax			X	
HT 15: Zoning for commercial development to include strict landscape requirements (meet town standards)				X
HT 16: Standards remain high				X
HT 17: Density remain low				X
HT 18: Measures to reclaim a water				X
DL 1: Dove road traffic (Read: too much traffic on Dove Road)			X	
DL 2: Growth rate seems optimistic (5000 upper limit/ 3,500 preferred)				X
DL 3: 1,000 new homes in 5 years	?	?	?	?
DL 4: Idealic right now	X			
DL 5: Both DU and FI "hidden"				X
DL 6: Retention required, will reduce overall footprint			X	
DL 7: Pastoral community		X		
DL 8: Disappointed if parcels sold off for distribution facilities			X	
DL 9: Higher end development preferred				X
DL 10: No strip malls				X
DL 11: Duplicate Vaquero				X
DL 12: Keep doing what you are doing	X			
DL 13: Prefer to drive to another economic center			X	
DL 14: Can residential support town in lieu of commercial taxes			X	
DL 15: Septic system can be an issue			X	
DL 16: Pastoral setting		X		
DL 17: Schools (Read: quality schools)				X

Figure 93, continued. Citizen Workshop Comments TRIO

	Theme	Rept	Inpt	Oupt
DL 18: Should grandchildren go to school as population grows and ages			X	
DL 19: Police Dept. needed?				X
DL 20: Don't separate residential and commercial by a "wall"				X
DL 21: Don't build to edge, leave a buffer				X
DL 22: No smaller lots				X
DL 23: Density more important than lot size			X	
DL 24: Requisite green space				X
DL 25: Connect regional trails				X
DL 26: Pastures have fences (Read: preserve rural setting)		X		
DL 27: Bike lanes				X
DL 28: Preserve native trees...not as important as other assets				X
DL 29: No 6 lane Dove			X	
DL 30: Dove keep current characteristics...not expand				X
DL 31: More resources ( <i>Read: more assets</i> )				X
DL 32: Surface drainage, retention ponds...more natural not cement				X
DL 33: More aggressive water restriction			X	
EZ 1: Good description of area – Commercial District				X
EZ 2: Envision commercial/ retail				X
EZ 3: High density along this corridor				X
EZ 4: Prefer traffic pattern circle in – out vs. E/W N/S			X	
EZ 5: Residents, quick access to major highways				X
EZ 6: Future growth to impact this area most			X	
EZ 7: Roads – most important consideration for planning			X	
EZ 8: Maintain landscape corridor on both sides of highway				X
<b>TOTALS</b>	<b>13</b>	<b>6</b>	<b>35</b>	<b>62</b>

Figure 93, continued. Citizen Workshop Comments TRIO

The work of the discussion groups was extremely fruitful and produced the kind of inputs necessary to establish guiding Citizen Priority Statements and Goal Statements.

### Summary of Figure 93

#### **THEMES: Unifying characteristics or characterizations.**

- TD 1: Predominantly undeveloped
- TD 3: Agricultural
- TD 9: Vistas
- TD 10: Rolling hills
- TD 29: Make Westlake better without degrading it (read like what exists)
- TD 31: Town center – HUB
- SO 1: Open space
- SO 3: Quiet
- SO 4: Quality
- HT 5: Vintage, country, space – love these open, rural, relaxed

- HT 12: Preserve rural heritage
- DL 1: Idealic right now
- DL 12: Keep doing what you are doing

#### **REPEATS: Particular phrases or words that are repeated.**

- TD 1: Picturesque
- SO 6: Like pastoral setting
- HT 2: Rural green Space
- DL 7: Pastoral community
- DL 15: Pastoral setting
- DL 26: Pastures have fences (read: preserve rural setting)

#### **INPUT INDICATORS: Statements of problems or conditions that call for remedial action set in motion by goals...a different outcome than the problem or condition described.**

- TD 5: Not easily accessible
- TD 6: Cut through back road
- TD 7: Lake under appreciated

TD 8: Cemetery  
 TD 19: Don't replicate everything around us, "enclave"  
 TD 20: Don't want intense uses that destroy pastoral community  
 TD 21: Don't want warehouse/ light industrial  
 TD 22: Don't want apartments and high density  
 TD 27: Want traffic around and not through it  
 SO 5: Dove road getting worse...need E&W artery  
 SO 8: Potential overbuilt of commercial  
 SO 9: Should have more single family on Maguire...property to reduce traffic (no retail or office traffic)  
 SO 10: Access issues  
 SO 11: Have property value issues along Dove due to traffic already  
 SO 12: Roundabouts needed  
 SO 13: More arteries needed  
 SO 19: Sidewalks on perimeter only to reduce theft  
 SO 21: No apartments  
 SO 22: No public transportation (read: there isn't public transportation)  
 HT 6: Traffic would be an impact (Roanoke Road should stay 2 lanes)  
 HT 14: Need commercial to balance Ad Val Tax  
 DL 1: Dove Road traffic (Read: too much traffic on Dove Road)  
 DL 6: Retention required, will reduce overall footprint  
 DL 8: Disappointed if parcels sold off for distribution facilities  
 DL 13: Prefer to drive to another economic center  
 DL 14: Can residential support Town in lieu of commercial taxes  
 DL 15: Septic system can be an issue  
 DL 18: Should grandchildren go to school as population grows and ages  
 DL 23: Density more important than lot size  
 DL 29: No 6 land Dove

DL 33: More aggressive water restriction  
 EZ 4: Prefer traffic circle in – out vs, EW/ NS  
 EZ 6: Future growth to impact this area the most  
 EZ 7: Roads most important consideration for planning

**OUTPUT INDICATORS: Statements of desired outcomes or conditions that reflect remedial action set in motion by goals... goals required to attain stated outcome.**

TD 4: Education center  
 TD 11: Slower pace  
 TD 12: Juncture of 170/ 114, key intersection  
 TD 13: Do want commercial along frontage and buffer between school and residential  
 TD 14: Do want more land for school, especially  
 TD 15: Do want athletic fields – school/ town possible buffer  
 TD 16: Do want walking/ biking trails  
 TD 17: Do want high design standards  
 TD 18: Do want open space, large lots to allow use of topography  
 TD 23: Maximize and increase value of lake  
 TD 24: Use lakes for detention (Read: centralize detention)  
 TD 25: Use lakes for natural conservancy  
 TD 26: Use lakes for trails  
 TD 28: Traffic congestion zone – pay toll... speed bumps  
 TD 30: Fire service (shared)  
 TD 32: Dog park  
 TD 33: Golf course  
 TD 34: Park area- play ground...likes passive (???) parks  
 TD 35: Arboretums  
 SO 2: Like 2 lane roads  
 SO 7: Viewed as healthy mix of single family and commercial  
 SO 14: Set aside right of way now to plan for the future  
 SO 16: Make it tough for traffic to get through Town in order to keep tranquil feel of Westlake  
 SO 17: More retention ponds...use as a

property value increase & amenity & reduce flooding  
 SO 18: Trails  
 SO 20: Connectivity of trails  
 HT 1: Density of houses to be built is less than 1 acre – it would have to be consistent with the rest of Westlake (average 1 ac. with the development)  
 HT 3: Need for office complex uses to stay with a “campus setting” and low density  
 HT 4: Need to plan for mass transit – preserve space for transit  
 HT 7: Commercial should stay close to 114  
 HT 8: 10% of development should be green space, parks, trails, etc.  
 HT 8a: Hike and bike connect to center of Westlake  
 HT 9: Sidewalks in developed areas  
 HT 10: Split level between car traffic and bike (Read: separate vehicular and bike movement)  
 HT 11: Roundabouts, plan for them  
 HT 12: Preserve existing creek lands  
 HT 15: Zoning for commercial development to include strict landscape requirements (meet the Town standards)  
 HT 16: Standards remain high  
 HT 17: Density remain low  
 HT 18: Measures to reclaim water  
 DL 2: Growth rate seems optimistic (5,000 upper/ 3,500 preferred)  
 DL 5: DU and FI “hidden”  
 DL 9: Higher end development preferred  
 DL 10: No strip malls  
 DL 11: Duplicate Vaquero  
 DL 17: Schools (Read: quality schools)  
 DL 19: Police Dept. needed?  
 DL 20: Don’t separate residential and commercial by a “wall”  
 DL 21: Don’t build to edge leave a buffer  
 DL 22: No smaller lots  
 DL 24: Requite green space  
 DL 25: Connect regional trails  
 DL 27: Bike lanes  
 DL 28: Preserve native trees...not as important as other assets

DL 30: Dove keep current characteristics... not expand  
 DL 31: More resources (Read: more assets)  
 DL 32: Surface drainage, retention ponds... more natural, not cement  
 EZ 1: Good description of area – commercial district  
 EZ 2: Envision commercial/ retail  
 EZ 3: High density along this corridor  
 EZ 5: Residents, quick access to major highways  
 EZ 8: Maintain landscape corridor on both sides of highway

**OUTLIERS: Statements that do not relate to goals**

SO 15: New undeveloped 200 acres. Do this in non-Solana areas  
 DL 3: 1,000 new homes in 5 years

**FORMULATING THE CITIZEN PRIORITIES FROM DISCUSSION GROUP COMMENTS**

The following list presents the translation of discussion group comments into **Citizen Priority Statements**. Citizen Priority Statements are the underpinnings of Goal Statements to follow and act to illustrate how any goal should be applied. Each statement starts with a verb, suggesting action. Then, the statement suggests the purpose of the action and, where needed, adds action qualifiers. To illustrate, a statement such as “**Preserve the sense of balance between residential and commercial development by promoting continuity of development forms, pallet of landscaping, meaningful/ functional buffers, built area to land area ratios, and character of the street experience**” starts with the desired action (namely, “Preserve”) aimed at a particular purpose (the sense of balance between residential and commercial development). The community input informing this statement refers to the current balance between

the two uses (output indicator). This is understood as a balance because the essence of the balance referred to is a sense of openness, residential forms in commercial design, campus configuration of commercial development, and ground plane continuity that speaks to the ruralness of Westlake. Therefore, it is necessary to add additional conditions to the statement that capture the essence of balance. This is contained in the many visual characteristics typical of the current condition: continuity, landscaping, open space buffers, and the amount of the perceived level of undeveloped land to developed land. The following list of Citizen Priority Statements takes the 116 Discussion Group Comments and reduces them into **75 Citizen Priority Statements**. The statements are presented below according to the common area of concern they address.

### **CITIZEN PRIORITY STATEMENTS DERIVED FROM COMMUNITY COMMENTS at WORKSHOP #1 (before public review at Public Workshop #2)**

#### **Views:**

1. Maintain views of a largely undeveloped foreground as Westlake grows.
2. Maintain views of agricultural land and agricultural activities as Westlake grows.
3. Maintain distant vistas from higher elevations.
4. Maintain views of natural topography.
5. Maintain view sheds that contain essential elements of Westlake's pastoral character.

#### **Visual Image**

1. Create development standards on features that promote and preserve the picturesque and pastoral qualities of Westlake and reinforce the notion of a "pastoral community".

2. Promote a rural character in present open spaces and future open space expansion.

#### **Quality of Life**

1. Preserve the quiet rural character of Westlake in residential areas and in the public domain.
2. Preserve Westlake's sense of "slow paced" life as it develops by promoting experiential and visual characteristics associated with the current non-encroachment condition.

#### **Preservation**

1. Preserve the rural and agricultural features of cultural significance.
2. Preserve natural corridors.
3. Preserve sense of openness in the continuity of a ground plane that is not interrupted by opaque fences or walls.

#### **Visual Image/Identity**

1. Promote aspects of rural heritage in future development.
2. Promote a visual character that communicates a high quality of building and landscape construction, both public and private.
3. Encourage development patterns in the western portions of Westlake that preserve landmark characteristics of this landscape and embody visual qualities that continue rural characteristics.
4. Promote design excellence in land and landscape development, both public and private.
5. Preserve the natural land profiles and landmark land forms as well as promote greater open space as Westlake develops through regulation of building to land area relationships.
6. Preserve the sense of balance between residential and commercial development by promoting continuity of development forms, pallet of landscaping, meaningful/ functional

- buffers, built area to land area ratios, and character of the street experience.
7. Maintain a continuity between the character of future smaller lot development and the dominant larger lot developments of Westlake by a consistency in landscape, design quality, and general visual character of development as seen from the street (internally and externally).
  8. Promote non-residential/ office development that hosts a significant ground plane of pedestrian features and visual amenities, instead of parking and service, and that ground planes of neighboring projects flow together to create a more campus-like setting overall.
  9. Maintain trajectory of small residential population at build-out in order to promote a small town sense of community.
  10. Establish development standards that discourage the direct visual connection or orthogonal orientation between roadways and structure that is typical of most suburban development.
  11. Establish development guidelines that discourage typical strip-like, suburban commercial development
  12. Promote a continued use of natural forms in, and non-structured means of, storm water management and detention facility design.
  13. Promote the continued creation of environmental, cultural, educational, and visual assets for Westlake in all private and public development.
  14. Promote the aggregate and singular identity of multiple private projects, especially in the commercial areas of Westlake so that the Town attains a coherent overall identity rather than multiple autonomous identities.
  15. Promote a special freeway scape identity for Westlake where it lies on both sides of SH 170 and SH 114.

### **Urban Form**

1. Create a town center/ hub.
2. Create a future relationship between commercial and residential that is rooted in the current pastoral identity of Westlake.
3. Maintain Westlake's sense of separation from surrounding typical commercial and residential development.
4. Focus the commercial components of Westlake to locations along the SH 114 and SH 170 portions of the community.
5. Create meaningful and purposeful buffers between single-family, lower density, residential uses and non-residential development that link activities while protecting the residential areas from encroachment.
6. Promote the aggregation of higher density in the SH 170/ SH 114 corridor instead of a uniform density overall, thereby lessening total land coverage.
7. Encourage aggregation of current entitlement rights, where possible, in ways that contribute to a greater amount of undeveloped land.

### **Development Form**

1. Encourage less development coverage of land and promote the use of land for enhanced retention and other landscape amenities.
2. Establish development standards for more creative regulation of density instead of simply lot size.
3. Encourage the predominantly non-residential growth of western portions of Westlake to properly compliment the residential portions of Westlake and preserve/ enhance residential values.

### **Accessibility**

1. Make pedestrian movement from neighborhoods to desired destinations within Westlake more conveniently accessible

2. Make the commercial areas of Westlake accessible to patrons without encroaching upon residential neighborhoods.

### **Vehicular Circulation/ Traffic**

1. Discourage cut-through traffic on local and residential roadways, including the provision of a roadway system that accesses residential and non-residential areas of Westlake from perimeter roadways that prevent the need for cross town vehicular movement.
2. Encourage traffic movement around Westlake more than through Westlake.
3. Relieve the growing traffic pressure on Dove Road while preserving the rural image of Dove Road.
4. Mitigate the negative impact of high traffic volumes on residential property values.
5. Mitigate the negative impact of high traffic volumes on the rural character of local roadways.
6. Provide additional circulation capacity that protects local residential roadways from traffic inundation.
7. Create a thoroughfare system built upon a road typology that recognizes the need for different street classifications that include high and low traffic volume capacity as well as roadways with a more rural character.
8. Minimize the encroachment of commercial traffic onto residential roadways and/or through residential areas by such measures as implementing traffic calming techniques (such as roundabouts) to discourage traffic encroachment and enhance pedestrian safety.
9. Manage traffic to prevent traffic congestion through the use of traffic calming measures, where appropriate, and by intersection capacity improvements to enhance the level of

- service at key intersection locations.
10. Relieve potential traffic congestion zones through the provision of user funded lane capacity where feasible.
11. Anticipate future vehicular circulation needs and take measures to secure right of way availability.
12. Separate vehicular and bike/ pedestrian movement spatially and/ or functionally in order to facilitate efficient vehicular traffic flow and enhance bike/ pedestrian safety and user experience.
13. Preserve and promote the convenient access to major roadways for the residents of Westlake.

### **Alternate Modal Movement**

1. Promote sidewalks along the perimeter of all residential development and assure connections to non-residential development.
2. Provide public transportation for residents and local patrons/ employees that work and/or shop in Westlake that moves people within commercial areas, reduces trip generation of commercial areas, and provides better connection between residential areas and Westlake's commercial center.
3. Create a workable system of walking and biking trails that links points of trip origin with desired destinations and integrates with regional trail systems.
4. Employ existing and future lakes/ water bodies and other natural systems in the overall Westlake trail system.
5. Encourage the connection of individually constructed trail facilities as they are built and assure connection to desired destinations within Westlake.

### **Land Use**

1. Promote for-sale housing options over rental housing options where ever possible.
2. Discourage the development of

distribution facilities in Westlake and maintain a land use differentiation from land development to the west.

3. Promote and encourage compatibility between commercial development in Westlake and other commercial centers that contributes to greater economic vigor overall and prevents competition between commercial centers in the region.
4. Preserve and promote the single family character of the Solana area as commercial PD's develop.
5. Maximize the opportunity of the strategic importance of the SH 170/ SH 114 intersection to create a center and identity that is uniquely Westlake and enhance the value of Westlake overall.
6. Encourage larger lot development contiguous to existing residential areas.

#### **Value/ Financial Sustainability**

1. Make vehicular movement for Westlake residents from home to destinations more accessible.
2. Maintain a balance between the Ad Valorem revenues of non-residential and residential development so that property taxes on residential property do not have to be disproportionately raised to accommodate the impacts of future development in and around Westlake.

#### **Academy Sustainability**

1. Maintain the Academy's continued availability to the resident children of Westlake as Westlake and the areas around Westlake grow through facility expansion and/ or enrollment policy revisions as appropriate.

#### **Education**

1. Improve and promote Westlake's growing reputation as a community of educational excellence and

educational opportunity.

#### **Water Ways, Water Bodies, and Natural Systems**

1. Encourage the gathering of required detention into major environmental amenities for the Town.
2. Maximize the potential of present and future lakes and water courses to enhance the value of residential and non-residential development.
3. Centralize detention as much as possible in current lakes/ ponds and other "in-line" water catchment areas in order to encourage larger, more useful, and more recreational water bodies.
4. Anticipate the effects of upstream development in Keller and Southlake on the configuration of future flood areas and water flow management systems (including creek ways, lakes, and ponds); and secure area for floodway/ water body expansions as they are needed and use such increases to further enhance the open space and recreational assets of Westlake.

#### **Infrastructure and Public Facilities**

1. Create or expand a city sewer system that relieves the predominance of septic systems as Westlake grows.
2. Provide adequate fire service to accommodate both residential and non-residential demand for such services, meet the requirements of insurers, and prevent future loss of life or significant property damage to other properties.
3. Provide adequate police service to accommodate both residential and non-residential demand for such services, meet the requirements of insurers, and prevent future loss of life or significant property loss.

## **Environmental Sustainability and Conservation**

1. Promote water conservation and reduce water usage.
2. Preserve existing creek ways and creek areas associated with them through creation of preserves/parks and/ or development standards that promote responsive, low-impact development practices.
3. Initiate natural and system supported measures to reclaim and reuse water where appropriate.
4. Preserve significant native trees and tree communities, especially within riparian areas.
5. Use existing and future lakes as facilities for water conservation and waterways serving them as places of natural conservancy.

## **Parks and Recreation**

1. Provide park and recreation opportunities that serve the needs of Westlake's present and future population, such as dog parks, playgrounds, and public golf course.
2. Provide recreational opportunities that are more undeveloped passive open spaces that serve less intense and contemplative activities, such as arboretum or natural preserve.

## **DERIVING GOALS FROM THE 75 CITIZEN PRIORITY STATEMENTS**

The Citizen Priority Statements listed above are gathered under headings that indicate areas of common concern. The statements are descriptive of the expected performance of any action taken in the area of common concern and are, therefore, descriptive of a goal related to the area of common concern. The following list presents the goals that these statements suggest for each area

of concern. Beneath each Planning Goal Statement are the Citizen Priorities, which support the goal. The red text indicates additions to the above Citizen Priority Statement list that came as a result of public review in Public Workshop #2. This list is the final list of **Planning Goals and Citizen Priority Statements** and is used to guide the planning work presented in this Comprehensive Plan Update. **These Statements should be reviewed from time to time and used as a guide to clarify meaning of the plan elements and their application.**

### **Views**

**General Goal: Future views from residential areas should present qualities of vista, natural-ness, pastoral/ agricultural character, and sense of openness that exist today.**

### **Supporting Citizen Priorities:**

1. Maintain views of a largely undeveloped foreground as Westlake grows.
2. Maintain views of agricultural land and agricultural activities as Westlake grows.
3. Maintain distant vistas from higher elevations.
4. Maintain views of natural topography.
5. Maintain view sheds that contain essential elements of Westlake's pastoral character.

### **Visual Image**

**General Goal 1: Future development should perpetuate picturesque and pastoral qualities that promote a visual identity associated with rural-ness.**

### **Supporting Citizen Priorities:**

1. Create development standards defining features of development that promote and preserve the picturesque and pastoral qualities of Westlake and

reinforce the notion of a “pastoral community”.

2. Promote a rural character in present open spaces and future open space expansion.
3. Promote aspects of rural heritage in future development.

**General Goal 2: Future development should embody recognizable quality of building and site design as well as maintain an overall balance and continuity between commercial and residential portions of the Town.**

**Supporting Citizen Priorities:**

1. Promote a visual character that communicates a high quality of building and landscape construction, both public and private.
2. Encourage development patterns in the western portions of Westlake that preserve landmark characteristics of this landscape and embody visual qualities that continue rural characteristics.
3. Promote design excellence in land and landscape development, both public and private.
4. Preserve the sense of balance between residential and commercial development by promoting continuity of development forms, pallet of landscaping, meaningful/ functional buffers, built area to land area ratios, and character of the street experience.
5. Maintain a continuity between the character of future smaller lot development and the dominant larger lot developments of Westlake by a consistency in landscape, design quality, and general visual character of development as seen from the street (internally and externally).
6. Promote non-residential/ office development that hosts a significant

ground plane of pedestrian features and visual amenities, instead of parking and service, and that ground planes of neighboring projects flow together to create a more campus-like setting overall.

7. Maintain trajectory of small residential population at build-out in order to promote a small town sense of community.
8. Establish development standards that discourage the direct visual connection or orthogonal orientation between roadways and structure that is typical of most suburban development.
9. Establish development guidelines that discourage typical strip-like, suburban commercial development.
10. Promote a continued use of natural forms in, and non-structured means of, storm water management and detention facility design.
11. Promote the continued creation of environmental, cultural, educational, and visual assets for Westlake in all private and public development.
12. Promote the aggregate and singular identity of multiple private projects, especially in the commercial areas of Westlake, so that the Town attains a coherent overall identity rather than multiple autonomous identities.
13. Promote a special freeway scape identity for Westlake where it lies on both sides of SH 170 and SH 114.

**Quality of life**

**General Goal: Future Westlake should continue to be a place where one can live a “slow paced” life style in a quiet, rural like setting.**

**Supporting Citizen Priorities:**

1. Preserve the quiet rural character of Westlake in residential areas and in the public domain.

2. Develop strategies that encourage and inspire commercial development to incorporate visual qualities reflective of Westlake's "rural-like setting".
3. Preserve Westlake's sense of "slow paced" life as it develops by promoting experiential and visual characteristics associated with the current non-encroachment condition.

### **Preservation**

**General Goal: Future Westlake should contain essential scenic, cultural, and architectural features which are a legacy of its rural heritage.**

#### **Supporting Citizen Priorities:**

1. Preserve the rural and agricultural features of cultural significance.
2. Preserve natural corridors.
3. Preserve sense of openness in the continuity of a ground plane that is not interrupted by opaque fences or walls.
4. Preserve the natural land profiles and landmark landforms as well as promote greater open space as Westlake develops through regulation of building to land area relationships.

### **Urban Form**

**General Goal: Future Westlake should come together as an overall town form with an identifiable town center, residential areas and employment areas, tied together by streets, trails, and transitional buffers that maximize resident convenience and protect residential areas from commercial encroachment.**

#### **Supporting Citizen Priorities:**

1. Create a town center/ hub that is uniquely Westlake; an organic center to the Town and more than a retail development that looks like a town center.
2. Create a future relationship between

commercial and residential that is rooted in the current pastoral identity of Westlake.

3. Maintain Westlake's sense of separation from surrounding typical commercial and residential development.
4. Focus the commercial components of Westlake to locations along the SH 114 and SH 170 portions of the community.
5. Create meaningful and purposeful buffers between single-family, lower density, residential uses and non-residential development that link activities while protecting the residential areas from encroachment.
6. Promote the aggregation of higher density in the SH 170/ SH 114 corridor instead of a uniform density overall, thereby lessening total land coverage.
7. Encourage aggregation of current entitlement rights where possible in ways that contribute to a greater amount of undeveloped land.

### **Development Form**

**General Goal: Future development should create a greater level of amenity and residential compatibility for the Town.**

#### **Supporting Citizen Priorities:**

1. Encourage less development coverage of land and promote the use of land for enhanced retention and other landscape amenities.
2. Establish development standards for more creative regulation of density instead of simply lot size.
3. Encourage the predominantly non-residential growth of western portions of Westlake to properly compliment the residential portions of Westlake and preserve/ enhance residential values.

### **Accessibility**

**General Goal: Future Westlake should have a coherent trail system (pedestrian and**

## **bike trails) that links residential areas to important destinations within the Town.**

### **Supporting Citizen Priorities:**

1. Make pedestrian movement from neighborhoods to desired destinations within Westlake more conveniently accessible, **easily identifiable, and safer (i.e. eliminate pedestrian conflicts with barbed wire).**
2. **Encourage the use of city sidewalks and trails by children as a means of going to school by enhancing safety, convenience, and educational potential.**
3. **Implement grade separated street crossings for trails where feasible.**
4. Make the commercial areas of Westlake accessible to patrons without encroaching upon residential neighborhoods **or bisecting development properties.**

### **Vehicular Circulation/ Traffic**

**General Goal: Future Westlake should have a functional roadway network that protects property values and rural character by providing additional road capacity where needed to prevent the encroachment of commercial traffic into residential areas and keeps commercial circulation north of residential areas.**

### **Supporting Citizen Priorities:**

1. Discourage cut-through traffic on local and residential roadways, including the provision of a roadway system that accesses residential and non-residential areas of Westlake from perimeter roadways that prevent the need for cross town vehicular movement.
2. Encourage traffic movement around Westlake more than through Westlake.
3. Relieve the growing traffic pressure on Dove Road while preserving the rural image of Dove Road.

4. Mitigate the negative impact of high traffic volumes on residential property values.
5. Mitigate the negative impact of high traffic volumes on the rural character of local roadways.
6. Provide additional circulation capacity that protects local residential roadways from traffic inundation.
7. Create a thoroughfare system built upon a road typology that recognizes the need for different street classifications that include high and low traffic volume capacity as well as roadways with a more rural character.
8. Minimize the encroachment of commercial traffic onto residential roadways and/or through residential areas by such measures as implementing traffic calming techniques (such as roundabouts) to discourage traffic encroachment and enhance pedestrian safety.
9. Manage traffic to prevent traffic congestion through the use of traffic calming measures, where appropriate, and by intersection capacity improvements to enhance the level of service at key intersection locations.
10. Relieve potential traffic congestion zones through the provision of user funded lane capacity where feasible.
11. Anticipate future vehicular circulation needs and take measures to secure right-of-way availability.
12. Separate vehicular and bike/ pedestrian movement spatially and/ or functionally in order to facilitate efficient vehicular traffic flow and enhance bike/ pedestrian safety and user experience.
13. Preserve and promote the convenient access to major roadways and destinations for the residents of Westlake, **including SH 170 and SH 114.**

### **Alternate Modal Movement**

**General Goal: Future Westlake should reduce vehicular trips and promote pedestrian safety/ convenience through the provision of trails, sidewalks, and public transit.**

#### **Supporting Citizen Priorities:**

1. Promote sidewalks along the perimeter of all residential development and assure connections to non-residential development **without bisecting development parcels.**
2. **Promote a complete system of bike and pedestrian trails that connects places where people live to places people want to go within Westlake.**
3. Provide public transportation for residents and local patrons/ employees that work and or/shop in Westlake **(when feasible based on build-out demand)** that moves people within commercial areas, reduces trip generation of commercial areas, and provides better connection between residential areas and Westlake's commercial center.
4. Create a workable system of walking and biking trails that links points of trip origin with desired destinations and integrates with regional trail systems.
5. Employ existing and future lakes/ water bodies and other natural systems in the overall Westlake trail system.
6. Encourage the connection of individually constructed trail facilities as they are built and assure connection to desired destinations within Westlake and tie into regional trails that interface with Westlake's borders.
7. **Designate truck routes that preserve maximum roadway capacity and protect residential areas from truck encroachment.**

### **Land Use**

**General Goal: Future Westlake should have clearly defined residential and commercial areas that reinforce single-family values and neighborhoods as well as distinguished Westlake from other cities and townships in the general region.**

#### **Supporting Citizen Priorities:**

1. Promote for-sale housing options over rental housing options where ever possible.
2. Discourage the development of distribution facilities in Westlake and maintain a land use differentiation from land development to the west.
3. Promote and encourage compatibility between commercial development in Westlake and other commercial centers that contributes to greater economic vigor overall and prevents competition between commercial centers in the region.
4. Preserve and promote the single-family character of the Solana area as commercial PD's develop.
5. Maximize the opportunity of the strategic importance of the SH 170/ SH 114 intersection to create a center and identity that is uniquely Westlake and enhance the value of Westlake overall.
6. Encourage larger lot development contiguous to existing residential areas.
7. **Promote the creation of natural buffers (landscaped open space) between conflicting land uses.**

### **Value/ financial Sustainability**

**General Goal: Future Westlake should continue to have an Ad Valorem tax base sufficient to serve future financial needs.**

#### **Supporting Citizen Priorities:**

1. Preserve Westlake's distinctively low Ad Valorem tax rate on residential properties.

2. Maintain a balance between the Ad Valorem revenues of non-residential and residential development so that property taxes on residential property do not have to be disproportionately raised to accommodate the impacts of future development in and around Westlake.

### **Academy Sustainability**

**General Goal: Future Westlake Academy should meet the educational needs of Westlake's future population with continued high quality educational services and facilities.**

#### **Supporting Citizen Priorities:**

1. Maintain the Academy's continued availability to the resident children of Westlake as Westlake and the areas around Westlake grow through facility expansion and/ or enrollment policy revisions as appropriate.

### **Education**

**General Goal: Future Westlake should be an educational center.**

#### **Supporting Citizen Priorities:**

1. Improve and promote Westlake's growing reputation as a community of educational excellence and educational opportunity.
2. Expand educational opportunities to additional schools (such as preparatory school) and venues (such as interpretative nature trails) that give Westlake a unique value associated with a strong commitment to educational experiences and opportunities.

### **Water Ways, Water Bodies, and Natural Systems**

**General Goal: Future Westlake should transform future detention needs into a**

**system of distinctive water features and amenities for the Town.**

#### **Supporting Citizen Priorities:**

1. Encourage the gathering of required detention into major environmental amenities for the Town.
2. Maximize the potential of present and future lakes and water courses to enhance the value of residential and non-residential development.
3. Centralize detention as much as possible in current lakes/ ponds and other "in-line" water catchment areas in order to encourage larger, more useful, and more recreational water bodies.
4. Anticipate the effects of upstream development in Keller and Southlake on the configuration of future flood areas and water flow management systems (including creekways, lakes, and ponds); and secure area for floodway/ water body expansions as they are needed and use such increases to further enhance the open space and recreational assets of Westlake.

### **Infrastructure and Public Facilities**

**General Goal: Future Westlake should have sufficient infrastructure and emergency services to assure the continued health and safety of the Town's full-time and day-time populations.**

#### **Supporting Citizen Priorities:**

1. Create or expand a city sewer system that relieves the predominance of septic systems as Westlake grows.
2. Provide adequate fire service to accommodate both residential and non-residential demand for such services, meet the requirements of insurers, and prevent future loss of life or significant property damage to other properties.

3. Provide adequate police service to accommodate both residential and non-residential demand for such services, meet the requirements of insurers, and prevent future loss of life or significant property loss.
4. Form public/ private partnerships to facilitate private assistance with the cost of improved emergency services.

**Environmental Sustainability and Conservation**

**General Goal: Future Westlake should be a model of water conservation and environmental preservation for the area.**

**Supporting Citizen Priorities:**

1. Promote water conservation and reduce water usage.
2. Preserve existing creek ways and creek areas associated with them through creation of preserves/parks and/ or development standards that promote responsive, low-impact development practices.
3. Initiate natural and system supported measures to reclaim and reuse water where appropriate.
4. Preserve significant native trees and tree communities, especially within riparian areas.
5. Use existing and future lakes as facilities for water conservation and waterways serving them as places of natural conservancy.

**Parks and Recreation**

**General Goal: Future Westlake should be a town offering its residents distinctive recreation and park opportunities.**

**Supporting Citizen Priorities:**

1. Provide park and recreation opportunities that serve the needs of Westlake’s present and future population, such as dog parks,

- playgrounds, and public golf course.
2. Provide recreational opportunities that are more undeveloped passive open spaces that serve less intense and contemplative activities, such as Arboretum or natural preserve.

**EMPLOYING THE GOALS IN THE FRAMEWORK PLAN**

The completed Goal Statements (listed above) are the guiding elements of the Plan. Once published, these statements describe the nature of solution that planners should seek. From these goals a community **Vision Statement was created:**

**Westlake is an oasis of natural beauty that maintains open spaces in balance with distinctive development, trails, and quality of life amenities amidst an ever expanding urban landscape.**

The Vision Statement suggests a planning challenge of creating a diagrammatic vision for Westlake that harmonizes existing entitlements and previously proposed plans with the directives set by the citizens, residents, and land owners of Westlake. In order to do this, the Planning Team produced a **Framework Plan**, which is a graphic portrayal of the goal statements. The Framework Plan is diagrammatic in nature suggesting the areas, links, focal points, edge conditions, and sequences described by the community inputs. The visual elements of the diagram are zones, linkages, focal points, edges, and relationship to characteristic vistas. While not a plan, the Planning Framework is a consensus document (confirmed in Public Workshop #2) that portrays the meaning of Planning Goals and Citizen Priority Statements in geographic terms. Therefore, the Planning Framework is the template for the Comprehensive Plan

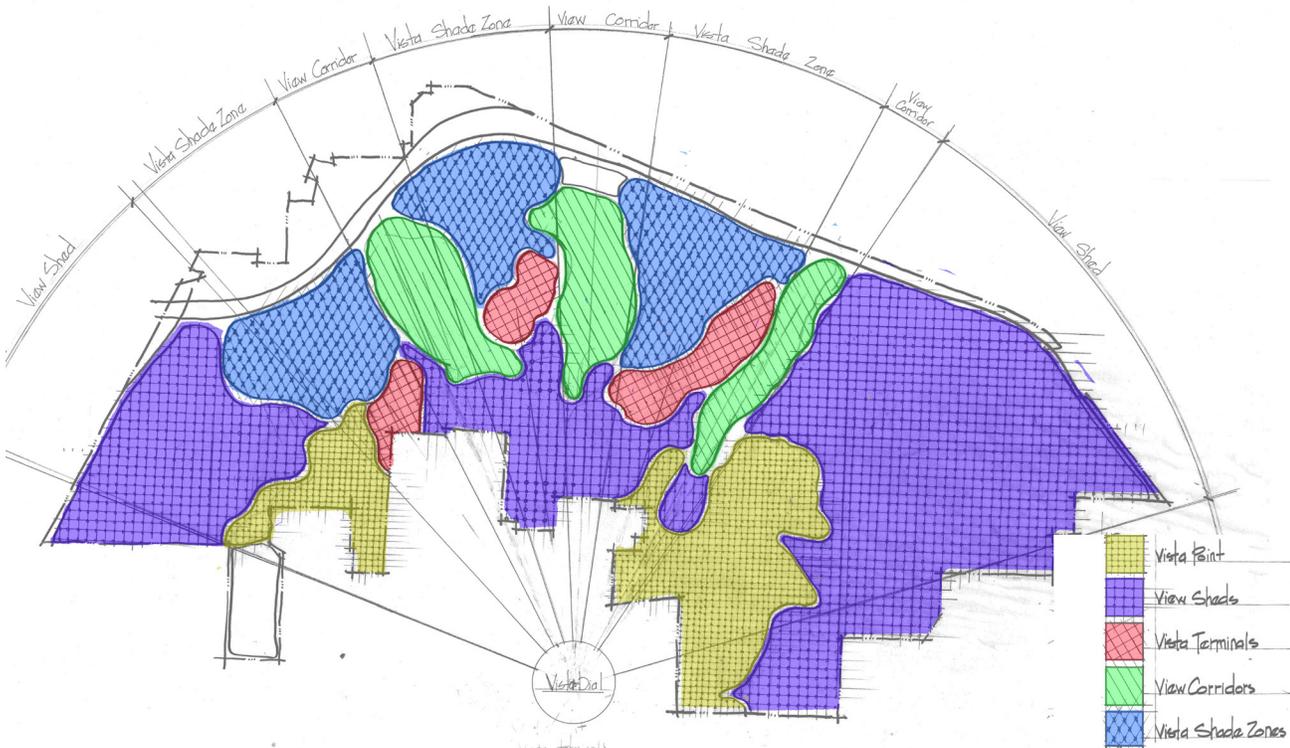


Figure 94: View Analysis

work to follow. The Planning Framework is derived through a six step process as follows:

**Step 1: Building On the Issue of Views.**

The Citizen Priority Statements reveal the importance of the “visual township” to the residents, citizens, and landowners of Westlake. The following set of images (referred to as the View Analysis) present the form of the “view settings” that make Westlake distinctive.

The Westlake View Analysis identifies five view conditions as follows:

**Vista Point Zone (yellow):**

- The Sectors from which recognizable views are typically seen.
- Typically northerly views.

**Vista Terminis (red)**

- The recognizable views/ promontory

landforms of Westlake.

- Typically exceed elevations of 690 ft. above sea level.

**Vista Shade Zone (blue):**

- Areas generally along SH 114, north of Vista Termini (red).
- Largely obscured from view by the Vista Termini.

**View Shed Zone (purple):**

- Areas not visually screened or obscured by high elevation landforms.
- Area lies within the vista seen from the Vista Point Zone (yellow).

**View Corridor Zone (green):**

- Linear views usually along creekways.
- Host water bodies and wooded areas.
- Important visual asset.

The view conditions respond to the Citizen Priority Statements calling for protection of

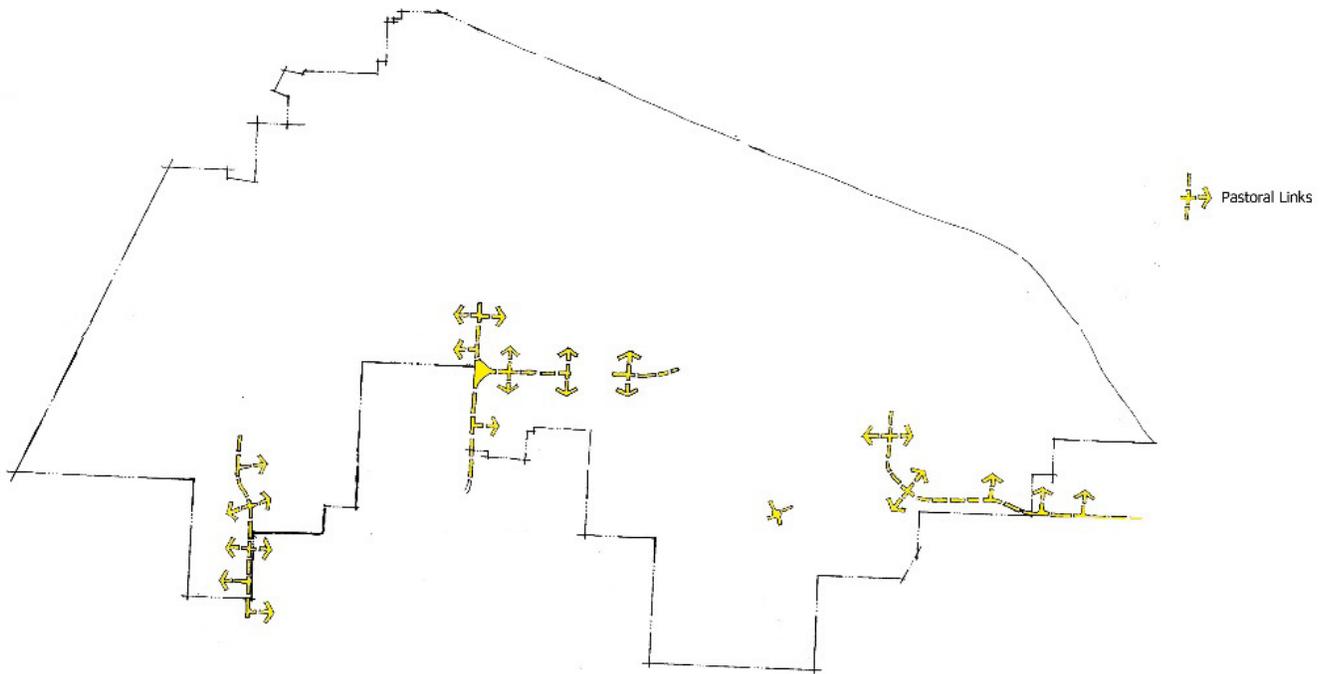


Figure 95: Pastoral Links

and recognition of the “view fabric” that distinguishes Westlake and is, therefore, the first framework element established in the creation of a Framework Plan for Westlake.

**Step 2: Protecting the Pastoral Pathways and Pastoral Areas.** Other important concerns of participants at the Public Planning Workshops #1 and #2 was that of protecting the pastoral quality of residential areas in the southern portions of Westlake, which includes the preservation of rural street character and protecting these streets from excessive traffic. Therefore, the second installment

toward creation of a Framework Plan is the identification of rural-like roadways. The diagrammatic map above shows those roadways as “Pastoral Links” (Figure 95).

Note that the Pastoral Links are those roadways serving existing residential areas of the Town, thereby putting the residential portions of Westlake on a pastoral system.

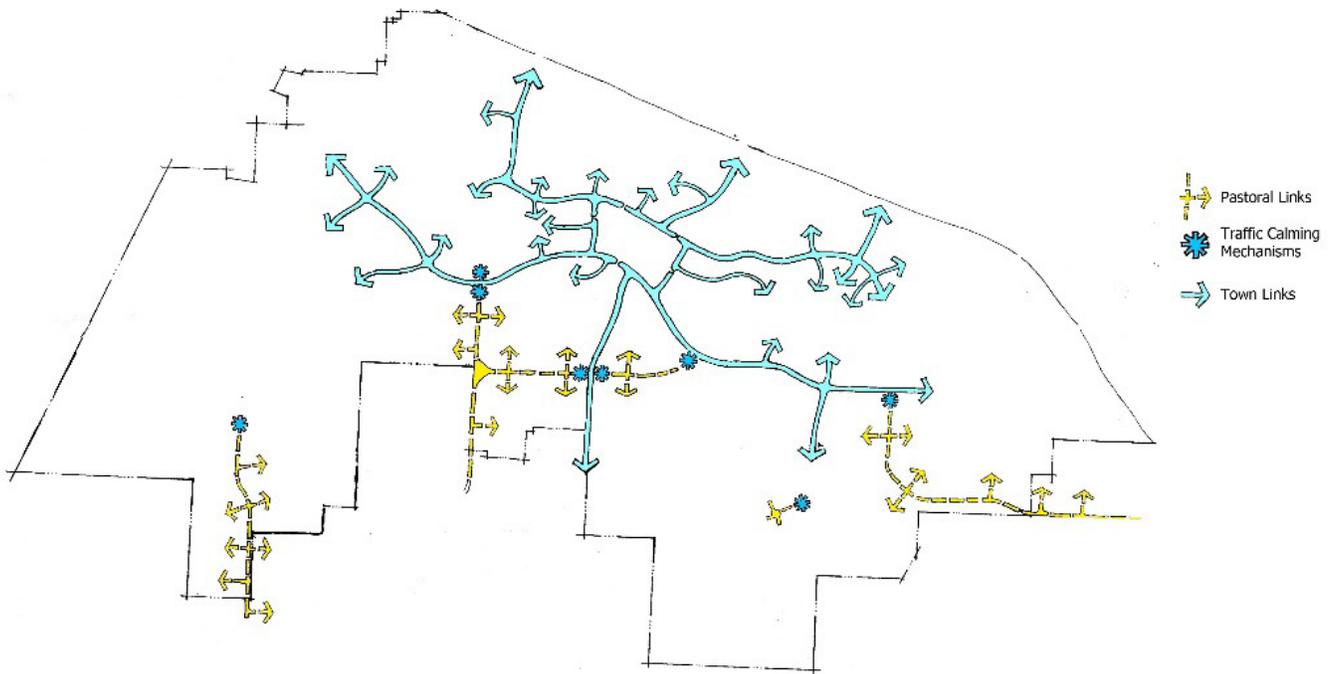


Figure 96: Town Links

**Step 3: Creating a Town Movement System.**

The citizen participants in the Public Planning Workshops expressed the desire for a coherent town-specific vehicular circulation system instead of a system extending into Westlake from Keller/Southlake (south) and from SH 114 (north). Instead, there was a desire for Westlake to reach out from within and connect to the areas around it, thereby expressing itself as a town. Therefore, the third installment in creation of a Framework Plan is the indication of a town-centric circulation system that reaches from the center out, thereby establishing Westlake

as a place within the ubiquitous fabric of the SH 114 corridor.

Note that the Town Links are the primary connections to Pastoral Links, which are further protected by traffic calming initiatives. This means that one must enter the Town in order to enter the residential areas of the Town.

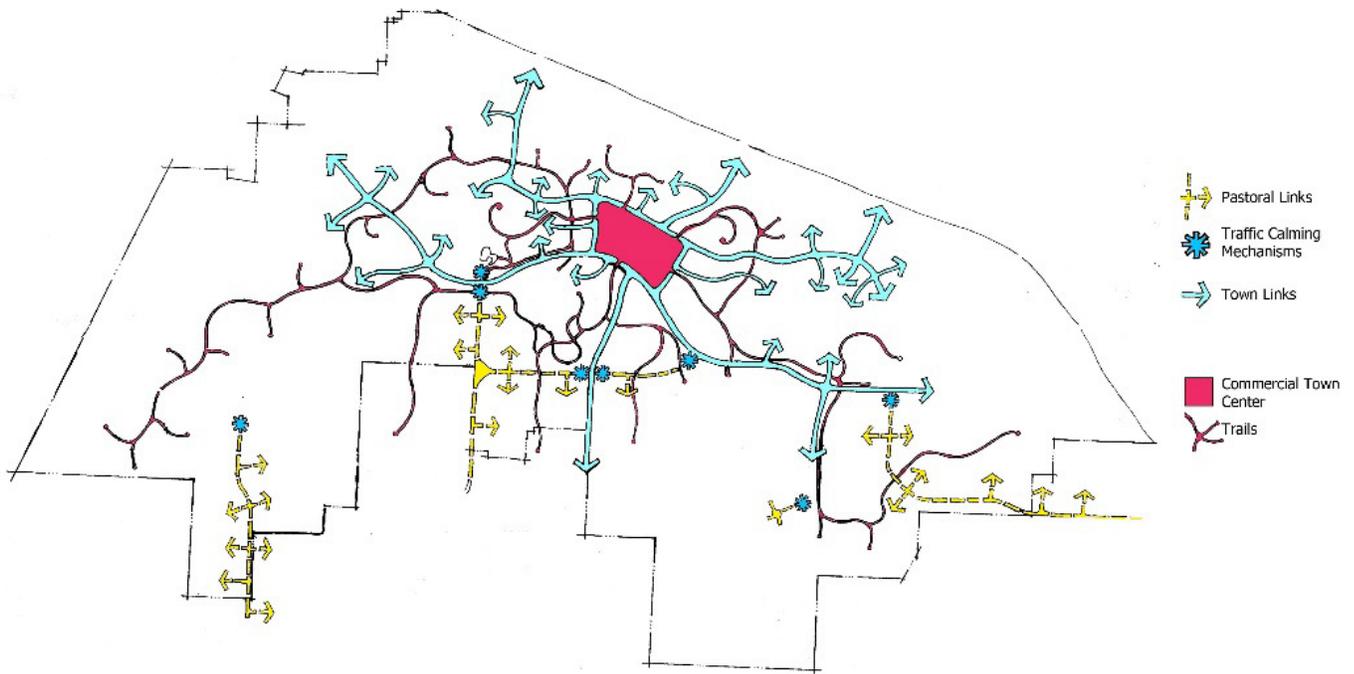


Figure 97: Town Hub

**Step 4: Establishing a place of Town Convergence (a Hub).** One of the themes among discussion group participants was the desire to ground the town form with a functioning town hub. Therefore, the fourth installment in creation of a Framework Plan is the indication of a centralized point for town circulation, which, as a result of its importance to movement patterns, will be understood as a town hub or town common. The diagrammatic map above shows the structural center of town movement as a town hub/common (Figure 97). Town movement in this diagram has both vehicular AND pedestrian movement.

Note that the pedestrian system (trails) is indicated to link all residential areas to the hub of town activity.

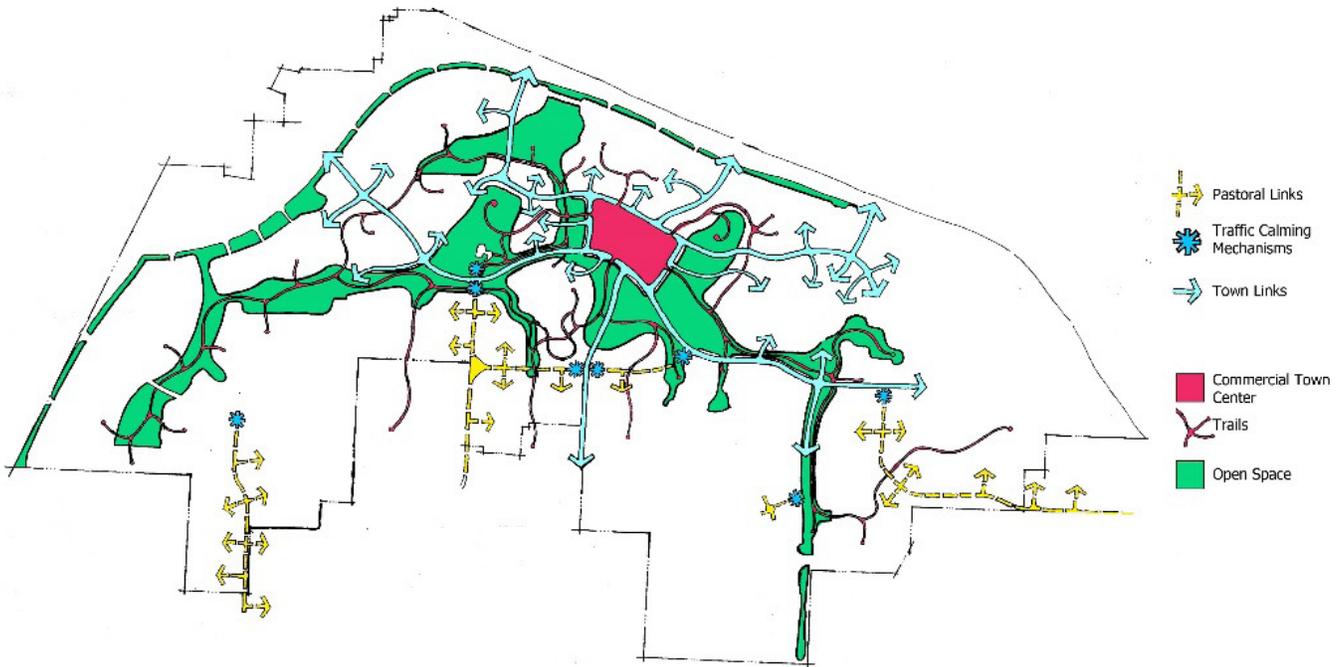


Figure 98: Open Space

### Step 5: Protecting the Viewed Township.

The view analysis reveals that much of the characteristic views of Westlake occur in the foreground between the Vista Point Areas (generally the pastoral areas) and the Vista Termini, the rising landscape that terminates at the hilltops located between residential areas (to the south) and commercial areas (to the north). Therefore, the fifth installment in creation of a Framework Plan is designation of a viewed landscape called Open Space. This viewed landscape also addresses the prevailing citizen concern for protecting and preserving the natural and rural assets of the Town in the face of pending growth. This common open space designation also brings residential and non-residential activities together in a meaningful way.

Note that the creation of an open space core establishes a central landscape through which the ordinary vehicular and pedestrian movement of the Town passes.



Figure 99: Community Types

**Step 6: Transitioning from pastoral to urban through a sequenced set of Community Types that relate to Views.**

The resident participants in discussion groups called for a balance between residential and commercial development. They want that balance to occur in a way that preserves the rural-ness of Westlake and protects distinctive features of its landscape. Therefore, the sixth installment in creation of a Framework Plan is establishing a compliment of communities arrayed around a central landscape element that protects the land features, buffers residential/non-residential adjacencies, and provides an appropriate setting for town elements. The Community Types shown in the Framework plan are:

- **The Pastoral Community:** Primarily residential areas in the southern portions

of the Town, which are served by the Pastoral Links. Also, this is the area in which the Vista Points are located.

- **The Town Community:** A place served by the Town Linkage System that should relate to the needs of the Town as well as the needs of the region.
- **Town Hub/Town Common Community:** The area that is the focal point of the town fabric, the center of town movement, and the primary town destination.
- **The View Shed Community:** The portions of the Town (currently zoned office) that lie within the view seen from higher elevations (Vista Points)
- **The Regional Community:** The primary commercial frontage of SH 114 and the area most hidden from view as seen from the Pastoral Community.



Figure 100: Framework Plan and View Analysis

Note that all the Community Types are arrayed within a system of movement positioned around a town hub/town common.

Figure 100 shows the Framework Plan superimposed over the View Analysis (discussed earlier).

### USE OF THE FRAMEWORK PLAN

This Framework Plan reflects full implementation of the Planning Goals, Citizen Priority Statements, and Vision Statement as presented earlier in this section. Therefore, it serves as a reference for development of the Planning Elements and, to the extent possible, Planning Elements should incorporate spatial features and relationships indicated.

However, the practicalities of crafting the Plan may mean that implementation of the intent of the Framework Plan is accomplished in spatial arrangements that are slightly different. For example, property owner concerns, natural barriers, extreme topography, conditions of the entitlements or construction may effect and augment spatial arrangements shown. Therefore, the Planning Framework is to be viewed as a spatial expression of Planning Goals and Citizen Priority Statements meant to guide the work and influence how “conditions on the ground” are addressed, realizing that final plan patterns may vary.





## PART THREE: THE PLAN ELEMENTS

### SECTION ONE: THE LAND USE PLAN

#### INTRODUCTION

The proposed Land Use Plan of the Comprehensive Plan Update builds from the Goals and Citizen Priority Statements as well as the Framework Plan. A key component of the Framework Plan is a View Analysis that expresses the geographic boundaries of citizen prioritization of pastoral, picturesque, and rural views (one of the primary themes and repeated concerns of citizen input). This physical distribution of view conditions (5 View conditions: Vista Points, Vista Termini, View Shade, View Shed, View Corridors) becomes a foundational element of the Land Use Plan, thereby, tying it directly to Citizen Priorities.

The Framework Plan further divides the 5 View Conditions (listed above) into 3 Community Types (Pastoral Community, Town Community, and Regional Community), thereby expressing the Citizen Priorities dealing with residential integrity, rural identity, town form, and commercial/residential relationships. Therefore, the built characteristics of Land Use in Westlake should be influenced by what **Community Type** is engaged

and what **View Condition** is affected. Community Type expresses the desired built character of land use that should manifest in development of existing entitlements. View Condition expresses the magnitude (density and height) of land use that preserves the vista.

The analysis above gives background for a definition of Land Use that focuses on built characteristics instead of zoning classifications. Such an approach to Land Use best compliments the existing, more traditional land use plan and facilitates management of growth in a context where the Town is already fully zoned. It is unlikely that new zoning applications will come forward. Instead, Westlake will be faced with amendment of existing Planned Development Ordinances, which cover nearly 65% of the Town's land area. Further, it is unlikely that any application for amendment would involve a request to lessen density, especially as the current PD's are written with density maximums, not density minimums. It is more likely that future applications for amendment would involve request for greater density, greater FAR (floor area ratio), additional height, and/or greater coverage. Therefore, it can be said that future applications for PD amendments are most likely to address the built characteristics of currently permitted land uses. Thus, a Land Use Plan addressing these aspects of development would be a useful guide for Planning Commission and Council as Westlake grows. For this reason, the Land Use Plan element of this Comprehensive Plan Update views land use as more form-based, related to issues of form, like density, square footage, value, use range, and the relationship of such items to Ad Valorem tax goals. Taking such an approach, the Land Use Plan will consist of a plan graphic and associated designation of land use performance

districts that apply land use performance objectives.

The following text describes the Land Use Plan as it navigates three important considerations informing the Land Use Plan: Relationship to Ad Valorem Tax Base, Relationship to View Conditions, and Relationship to Community Types.

**Relationship to Ad Valorem Tax Base:** The Assessments portion of the Comprehensive Plan Update identifies certain Ad Valorem performance thresholds that Westlake must attain in order to create and preserve an Ad Valorem capacity sufficient for future general fund needs. The Assessment analysis (Part One) states that Westlake's build-out General Fund obligation can be as high as \$19,804,395.00 (equates to a per capita cost of \$2,900.00, which is very much like Highland Park today). A portion of this fund obligation is supported by revenues flowing from various Fees, Fines, and Finances (such as interest earned on municipal investments), which constitutes approximately 17% of the total commitment (\$3,366,747). Additional contributions to the General Fund obligation come from the residential Ad Valorem Tax base. This is about 25% of the total commitment, taxed at the current rate of \$.13/ \$100 valuation (\$4,872,012). Commercial Ad Valorem contributions to the general fund obligation (at the same low rate) potentially comprise an additional 30% of the commitment (\$5,929,481).

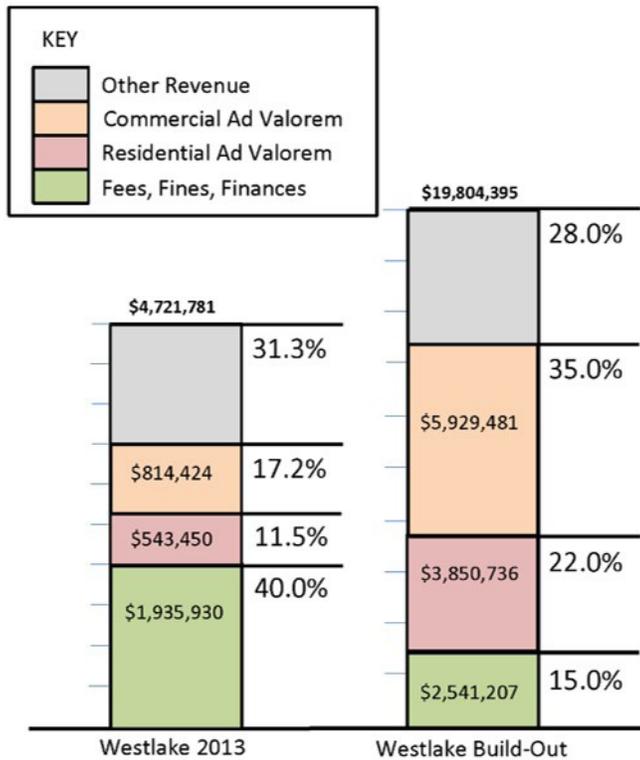


Figure 101: Westlake Build-out Ad Valorem Analysis

The sum of these contributions is \$14,168,240, or 72% of the total commitment. This leaves approximately 28% (\$5,636,155) to be funded by other sources (such as sales tax); the unfunded amount equals about half of the potential sales tax from the more than 3,000,000 sf. of retail development permitted by Planned Development Ordinances currently in place. Therefore, it can be said that Westlake's current entitlements embody sufficient Ad Valorem base to support 50+% of the total General Fund obligations, which is typical of most comparable cities (such as Highland Park). This level of Ad Valorem support potentially allows Westlake to preserve its low rate of taxation and establishes a limit on development impacts (such as traffic presence, day-time population, and viewshed encroachment). Once sufficient Ad Valorem base is in place, approval of additional commercial square footage within the boundaries of Westlake increases potential levels of commercial

encroachment, which can degrade the environmental qualities that residents of Westlake aspire to preserve (as stated in the Goals and Citizen Priority Statements) and which additional Ad Valorem revenue cannot mitigate.

As a result of the Westlake Build-out Ad Valorem Analysis above and its favorable comparison to other financially stable cities (such as Highland Park), the Land Use Plan establishes the current level of entitlement for non-residential development as an appropriate maximum for Westlake (given the current low rate of taxation). More specifically, that square footage maximum target can generally be broken down as seen in Figure 102. Note, however, the exact magnitude of square footage embodied in the Planned Development Ordinances depends upon final delineation of the building sites to be permitted and final calculation of applicable FAR's as specified in the individual PD Ordinances.

It is important that Westlake realize most of the non-residential development square footage shown in Figure 102 (an approximation of what is permitted by current Planned Development Ordinances) in order to sustain a comparatively lower rate of single-family taxation. The implications of establishing the approximate current level of commercial entitlement as a cap on further commercial entitlement (subject to final application of PD standards to final permitted parcels) is that future modification of the Planned Development Ordinances will limited movement of permitted non-residential square footage around, within and among the Planned Developments themselves while not adding square footage to the total that already exists. This can be better described as the transfer of non-residential square footage between various Planned

Westlake's Current Entitlements by Land Use			
	Building Area (Sq. Ft.)	Units	Rooms
<b>PD1-1</b>			
Hotel	150,000		250
Retail	349,483		
Office/Education	659,648		
Residential		207	
<b>PD1-2 (Entrada)</b>			
Residential		322	
Non-Residential	1,500:1 ratio = 483,000		
<b>PD1-3 (Granada)</b>			
Residential		84	
<b>PD-2</b>			
Office	5,217,752		
<b>PD-3</b>			
<b>PD 3-1</b>			
Office	58,806		
Residential		513	
<b>PD 3-3</b>			
Office	1,200,000		
Hotel	500,000		833
<b>PD 3-4</b>			
Office	558,355		
Hotel	750,000		1250
Retail	360,940		
Mall	1,630,000		
<b>PD 3-5</b>			
Office	884,505		
Mixed-Use	1,305,060		
Residential		275	
<b>PD 3-6</b>			
Office	1,207,486		
Retail	110,650		
Residential		40	
<b>PD 3-7</b>			
Office Campus	2,940,300	60	
<b>PD 3-8</b>			
Office	1,048,707		
Office Campus	775,436		
Office/Industrial	1,099,019		
Retail	131,769		
<b>PD 3-9</b>			
Office	27,443		
Retail	978,793		
Mixed-Use	660,587		
Residential (MF)		330	
<b>PD 3-10</b>			
Retail	133,633		
<b>PD 3-11</b>			
Retail	141,487		

Westlake's Current Entitlements by Land Use			
	Building Area (Sq. Ft.)	Units	Rooms
<b>PD 3-12</b>			
Conference, Education, Data, and 1200 room Hotel	1,250,000		1200
<b>PD-4 (Tierra Bella)</b>			
Single Family		28	
<b>Area Outside PDs</b>			
Office (FAR .25:1)	1,100,347		
R-1 (Min. Lot Size 43,560 sf)		488	
R-2 (Min. Lot Size 87,120 sf)		68	
R-5 (Min. Lot Size 217,800 sf)		35	
R-A (Min. Lot Size 43,560 sf)		48	
<b>Totals</b>	<b>Building Area (Sq. Ft.)</b>	<b>Units</b>	<b>Rooms</b>
Residential (SF)		2,168	
Residential (MF)		330	
Hotel	1,400,000		2,333
Office/ Office Industrial/ Campus Office	16,730,804		
Education/ Conference/ Hotel	1,250,000		1,200
Mixed-Use	2,448,647		
Retail (Inc. Mall)	3,836,755		

Figure 102: Westlake's Current Entitlements by Land Use

Development Districts. However, additional square footage (and the additional Ad Valorem revenue associated with it) could be approved IF the request for approval included accomplishment of significant public Goals that mitigate the additional impact (traffic mitigation, need for open space, etc.). Therefore, a case can be made for both:

1. The **Transfer** of non-residential square footage from one Planned Development Planning Area to another; and
2. Adjustments to the **rate of transfer**, **IF** certain public objectives are accomplished through such transfer. Therefore, accomplishment of certain significant public objectives may support a rate of transfer greater than 1:1, constituting a resulting increase in overall non-residential entitlement.

The following text establishes the terms of numbers 1 and 2 above by exploration of where non-residential square footage should be transferred to and from and what settings influence the rate of such transfer.

### **Land Use Relationship to View**

**Conditions:** The View Analysis discussed in the Framework Plan section of this Comprehensive Plan identifies five view conditions as follows:

1. **Vista Points Zone (yellow):** Sectors of Westlake from which the recognizable views, generally considered typical of the Town, are attained. These are typically northerly views from areas along, and south of, Dove Road. These elevations are generally higher than elevations along SH 114. Views identified by Planning Workshop participants as characteristic of Westlake's pastoral, picturesque, and rural identity are mostly seen from this

zone and the view is toward the north.

2. **Vista Termini Zone (red):** Areas of Westlake, generally north of Dove Road, where land elevations equal to or exceed elevation 690 to 700 ft. above sea level and create promontory landforms that define the end point of any vista that includes them. In many cases, these are the land related objects.
3. **Vista Shade Zone (blue):** Areas of Westlake, generally along SH 114 and north of the vista termini (discussed above) that contain land elevations lower than 690 – 700 ft. above sea level and are largely obscured from view by these higher elevations in the foreground of any vista toward them.
4. **View Shed Zone (purple):** Areas of Westlake that are not visually screened or obscured by foreground land elevations and, consequently, lie within the vista attained from the Vista Point Zone.
5. **View Corridor Zone (green):** Lineal views, usually along creekways as they descend in a northerly direction that are attained from the Vista Point Zone. These views host the water bodies and wooded areas that are important visual assets of the Town.

The geographic distribution of these view conditions is illustrated in Figure 103. Note that the Vista Points are in the south and the various views head toward the north. This reflects input gathered at the Planning Workshops where the Citizen participants described views as generally seen from points south of, and along, Dove Road (the Vista Point Zone). This geographic distribution identifies the five zones defined above as they lay within the corporate limits of Westlake. Therefore, "Preservation

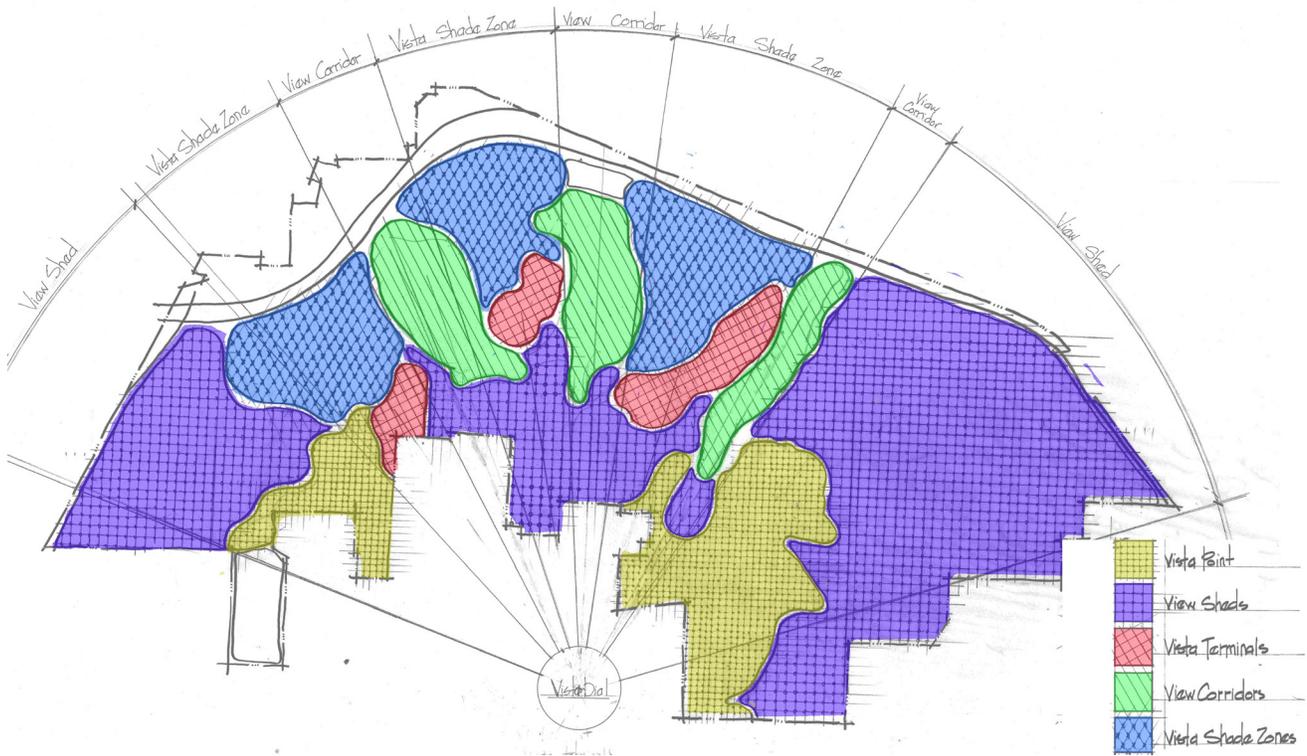


Figure 103: View Analysis

of Views" (picturesque, pastoral, and rural) means reinforcing the view conditions as shown in the View Analysis.

The characteristic views of Westlake are sensitive to four types of encroachments as follows:

**1. Vertical Disruption:** This refers to the height of buildings. The taller the structure, the more visible it generally is. More visibility ultimately transforms a natural skyline into a more urban skyline. Certain View Condition Zones are better suited to accommodate greater building height than others. The View Condition Zone most capable of accommodating building height without disrupting or transforming characteristic views is the View Shade Zones. These areas (shown in blue in the above analysis) are located along SH 114 and "behind" the Vista Terminals (red areas that tend to obscure ones view of development in the View Shade

locations). The Vista Terminals (red) and View Corridors (green) are most sensitive to building height because of their importance as view defining landscapes. The View Shed Zones (purple) are somewhat sensitive to building height and that sensitivity tends to be less toward the northern limits of Westlake, along SH 114.

**2. Ground Plane Augmentation:** This refers to reshaping the land profile and visually subdividing it with parking lots, screen walls, and/or artificially configured buffers. The more the naturally organic relationship of ground plane elements is replaced by composed or engineered relationships, the more the character of what is viewed is transformed. The View Condition Zone most capable of accommodating Ground Plane Augmentation without disrupting or transforming characteristic views is the View Shade Zones. These areas (shown in blue in the above

analysis) are located along SH 114 and “behind” the Vista Terminals (red areas that tend to obscure ones view of ground plane development in the View Shade locations). The Vista Terminals (red) and View Corridors (green) are most sensitive to Ground Plane Augmentation because of their importance as view defining landscapes and view defining land forms. The View Shed Zones (purple) are also less sensitive to Ground Plane Augmentation toward the northern limits of Westlake, along SH 114.

**3. Form Deviation:** This refers to building form that deviates from a pitched roof structure with a more complex perimeter and integration of windows (in lieu of ribbons/walls of glass) reflective of residential forms within the Town. Given the greater amount of non-residential development within Westlake at build-out, the movement of commercial building design away from residentially responsive forms will significantly transform the visual image of Westlake to one that is more urban and non-residential, overall. The View Condition Zone most capable of accommodating Form Deviation without disrupting or transforming characteristic views is the View Shade Zones. These areas (shown in blue in the above analysis) are located along SH 114 and “behind” the Vista Terminals (red areas that tend to obscure ones view of ground plane development in the View Shade locations). The Vista Terminals (red) and View Corridors (green) are most sensitive to Form Deviation because of their importance as view defining landscapes and view defining land forms. The View Shed Zones (purple) are also sensitive to Form Deviation because both residential and non-residential development resides within the same view. However, the

northern edges of the view shed along SH 114 are somewhat less sensitive provided that the proximity of non-residential forms is tempered with intervening landscape, like that of Solana.

**4. Displacement of Natural Fabric:**

This refers to the displacement of vegetative communities, water features, and/or land forms that define the vista. As natural fabric is lost, the visual character is transformed toward a less natural appearance. The historic review of aerial photographs discussed in the Existing Conditions Assessment (Part One) illustrates how increasing ranch development moved the characteristic landscape from one that hosted a complex tapestry of plant and native grass communities to one that was more simplified and became more of a monoculture. The View Condition Zone most capable of accommodating Displacement of Natural Fabric without disrupting or transforming characteristic views is the View Shade Zones. These areas (shown in blue in the above analysis) are located along SH 114 and “behind” the Vista Terminals (red areas that tend to obscure ones view of ground plane development in the View Shade locations). The Vista Terminals (red) and View Corridors (green) are most sensitive to Displacement of Natural Fabric because of their importance as view defining landscapes and view defining land forms. The View Shed Zones (purple) are also sensitive to Displacement of Natural Fabric because it is the intervening natural fabric that mitigates the visual proximity of residential and non-residential development. In addition, entry to Westlake’s residential areas (from SH 114) will likely be through the northern and western edges of the View Shed Zones, making the residential

approach and its visual character part of the view sequence that defines Westlake.

The above View Analysis of view encroachment sensitivity suggests that certain areas are more capable of hosting greater building height/ ground plane augmentation/ form deviation/ displacement of natural fabric, while other areas would benefit from less change of existing characteristics. More specifically, these areas can be described as:

**Sending Areas:**

- Areas of significant resource
- Areas with undeveloped infrastructure
- Areas of significant working land potential
- Areas of natural sensitivity
- Areas of unusual building conditions
- Areas of visual and landmark significance

**Receiving Areas:**

- Areas with existing or realistically expected infrastructure
- Area with community acceptance of increased growth
- Area where increased development potential is marketable
- Area of lesser visual significance

Under the present Planned Development Ordinance provisions, most of the non-residential entitlements have a uniform building height limit (typically 60-65 ft. although PD's 1 and 2 have heights set by the 635 MSL) and a uniform FAR (typically .4-.45 FAR). Therefore, a ubiquitous non-residential development standard will prevail over Westlake regardless of an area's sensitivity to view encroachment. In order to transform this ubiquitous condition to a mosaic of visually responsive conditions, the Land Use Plan identifies "Receiving Districts" and

"Sending Districts". These districts are more specifically defined as follows:

- **Primary Receiving District:** When considering any request for transfer of existing entitlement square footage from one PD planning area to another, those PD planning areas and tracts located within the zone classified as a Primary Receiving District are the PD planning areas and tracts where such square footage can be deposited. Such deposit of additional square footage will generally manifest as increased building height, coverage (augmentation of the ground plane), increasingly commercial building form due to larger buildings (form deviation), and possible displacement of natural fabric. Therefore, only the area most capable of accommodating the impacts of increased non-residential square footage can serve as Primary Receiving Districts. According to the earlier analysis of view shed districts, the **View Shade Zone (blue) is the Primary Receiving District.**
- **Secondary Receiving/Sending District:** PD planning areas and tracts located within the zone classified as a Secondary Receiving/Sending District are the PD planning areas and tracts into which square footage can be deposited and from which square footage can be transferred. Deposition of square footage can only occur in portions of this District less sensitive to encroachment and built in accordance with specialized requirements. Additionally, square footage can be sent from the more sensitive portions of this District to the less sensitive portions of this District (in accordance with specialized requirements) or to the Primary Receiving District. Therefore, only the areas capable of accommodating the

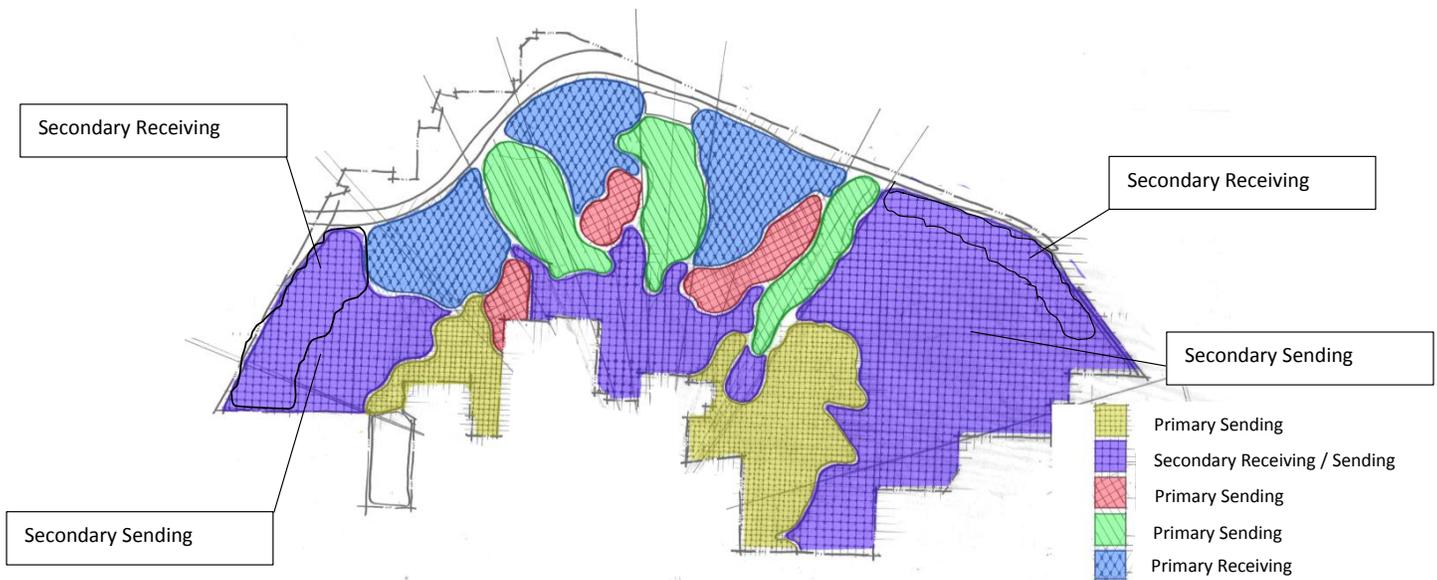


Figure 104: Development Square Footage Transfer Map

impacts of increased non-residential square footage, conforming to special requirements, in certain portions as well as possessing sensitivity to view encroachment in other portions can serve as Secondary Receiving/Sending District. **The View Shed Zone (purple) is the Secondary Receiving/ Sending District.**

- **Primary Sending District:** PD planning areas and tracts located within the zone classified as a Primary Sending District are those PD planning areas and tracts most sensitive to view encroachment or contain characteristic view features, such

as land promontories. Therefore, only the areas least capable of accommodating the impacts of increased non-residential square footage can serve as Primary Sending District. **The Vista Point Zones (yellow), Vista Terminals (red), and View Corridors (green) are the Primary Sending Districts.**

The above diagram (Figure 104) recast the earlier View Analysis map as a Development Square Footage Transfer Map, which is in accordance with the previously described sending and receiving areas.

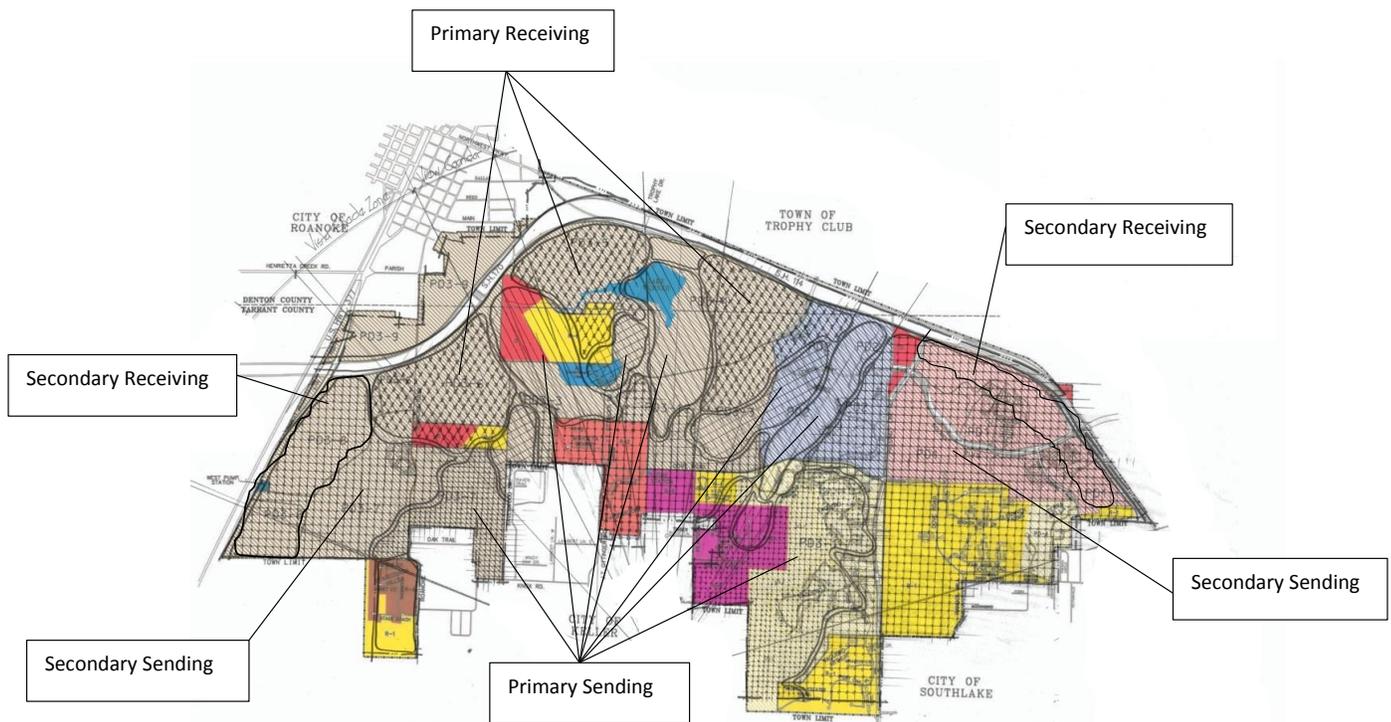


Figure 105: Development Square Footage Transfer Map and Current Zoning Map

To further illustrate how these districts relate to existing Planned Developments and zoned areas, the above diagram superimposes the Development Square Footage Transfer Map on the Current Zoning Map. Note that there are particular Planned Developments (such as PD-3) which lay across multiple Districts, opening the door to transfer of development square footage from one PD planning area to another. In some cases a Development Square Footage Transfer District lays across multiple Planned Developments, opening the door to consideration of moving square footage between zone areas. This is a significantly more complicated process which is discussed later in this Land Use section.

The Land Use districts, explained later in this section, will incorporate these areas of differing development sensitivity as means of establishing their receptivity to change.

## LAND USE RELATIONSHIP TO COMMUNITY TYPE

The Framework Plan discussed in Part Two of this Comprehensive Plan identifies six Community Types as follows:

- 1. Pastoral Community:** An area of Westlake, south of and along Dove Road and Roanoke Road, which is predominantly developed and/or zoned as single-family residential use. This area hosts the characteristic views and vistas that identify the residential areas of Westlake. These views are vistas of picturesque, pastoral, and otherwise rural-like settings as well as landmark land promontories. The Pastoral Community is primarily served by Pastoral Streets (as specified in the Framework Plan and Thoroughfare Plan to follow). The Pastoral Community will experience most of the Town's

future single-family residential growth. Therefore, it is important that future residential development perpetuates a compatibility with, the continuity of, and the quality of current residential construction/neighborhoods. Housing units per acre, relationship to the street, project definition, streetscape, and home value are important dimensions of maintaining the above specified relationships. This area is shown in dark blue in Figure 107.

## **2. View Shed Community (hereinafter called the Commercial Community):**

An area of Westlake generally north of Dove Road, reaching east toward Solana and west toward SH 170. The View Shed/Commercial Community is mostly undeveloped, containing a few projects such as Solana and Fidelity Investments, but is completely zoned. The eastern and western reaches of this area are the primary entry to the Westlake Pastoral Community. Therefore, what is seen from the street sets a visual reference for visual experiences to follow. Such cognitive significance means that the normally commercial-like quality of the street experience should be replaced by a visually dominant natural-like quality (much like what Solana has done in the vicinity of Solana Boulevard and Sam School Road). The Commercial Community will experience most of Westlake's campus office growth as well as some limited hospitality and residential use. Therefore, it is important that future non-residential development maintains a balanced relationship with, and provides a transition to, the Pastoral Community. This Community area is shown as purple in Figure 107. Key to establishing this relationship and transition are:

### **a. Open Space and Ground Coverage:**

The amount of building plate

coverage to ground openness is essential to maintaining a campus identity. In the campus setting, a naturalized ground plane dominates and structures are placed within it as opposed to a built context where the landscape is an ornament for the built fabric. This relationship of building to land is the same basic relationship of house to lot where the lot is sufficiently large (relative to the house plate) to give the home a sense of natural setting. Much of the non-residential entitlement in Westlake has a .4-.45 FAR maximum, meaning that the building square footage can be almost half of the land area. At the same time, the building height is limited to 4 +/- stories. As an example of how this equates to building coverage, consider that a one story building with a 20,000 sf plate. At .45:1 FAR, this building could sit on 44,444 sf. of land. Parking for the structure would likely be surface parking at 350 sf/ space and require another 21,000 sf of land for 60 vehicles. Circulation typically requires 10% of the land area total or 4,000 sf. Therefore, the sum of coverage is  $20,000 + 21,000 + 4,000 = 45,000$  sf or approximately 100% coverage. As the building gets taller, the ratio of coverage to open land improves with about 72% coverage by the time the structure reaches three stories. Clearly, attaining a true "campus" quality requires a lower FAR. At present, Westlake sites which are viewed as exemplary campus projects achieve an FAR less than .3 (some at a .1). Therefore, the campus-like qualities of non-residential development in the eastern and western reaches of the Commercial Community requires lower FAR.

### **b. Building Height:** Because this area

comprises the distant view as seen from Vista Points in the Pastoral Zone, building height above a certain level becomes very apparent. Therefore, building height in the Commercial Community is an essential consideration in development design. However, relatively high FAR's (as discussed above) will tend to push building to the maximum permitted height. It would be to the advantage of Westlake to see more varied height in the View Shed/ Commercial Community so that it does not impose a skyline over the view at build-out. Generally, tree varieties will reach a height of 40 - 45 ft. at maturity and an average overall building height of 40-45 ft. would allow some buildings to be taller and others lower, making a sufficiently variegated distribution of height to prevent over development of the skyline. In order to achieve this distribution of height and still use the development rights currently in place, an ability to shift square footage entitlement not used in attaining the build-out described above to other Planned Development planning areas capable of accommodating the impacts (as described in the previous section) should be considered.

- c. **Building Form:** Pitched roof building form and complex perimeters that visually break up the potential massiveness of a commercial wall plane would attain greater compatibility with the residential characteristics of the Pastoral Community. Also, pitched roof forms are more typical of a campus setting. Typically roof pitches greater than 4/12 are more residential in character.
- d. **Natural System Continuity:** As stated in the Assessment portion of this

Comprehensive Plan Update, the waterways of Westlake run south (upstream) to north (downstream). Because the waterways run south to north, continuity of natural features associated with the waterways also run south to north. Therefore, portions of the Commercial Community are downstream continuations of natural features (corridors and vegetative communities) that are well established up stream. This relationship reinforces the View Shed/ Commercial Community's importance as an entrance to the Pastoral Communities. Where possible, natural system elements that are continuations of those flowing from some level of establishment in the Pastoral Community should be preserved/ restored. This is difficult when site coverage (building + parking + circulation) approaches nearly 100%. This further supports the notion of relocating development rights out of the Commercial Community to more appropriate areas, provided that certain important relationships with the Pastoral Community are accomplished as a result of such transfer.

- e. **Canopy Restoration:** The presence of a robust tree canopy mitigates most sensations of urban-like qualities and promotes an umbrageous visual environment more associated with the visual character of Westlake. Therefore, canopy restoration and creation becomes an important aspect of development within the Commercial Community.
- f. **Streetscape Identity:** The Commercial Community is positioned within Westlake as part of its Town identity. Therefore, streets serving the Commercial Community, that are not directly associated

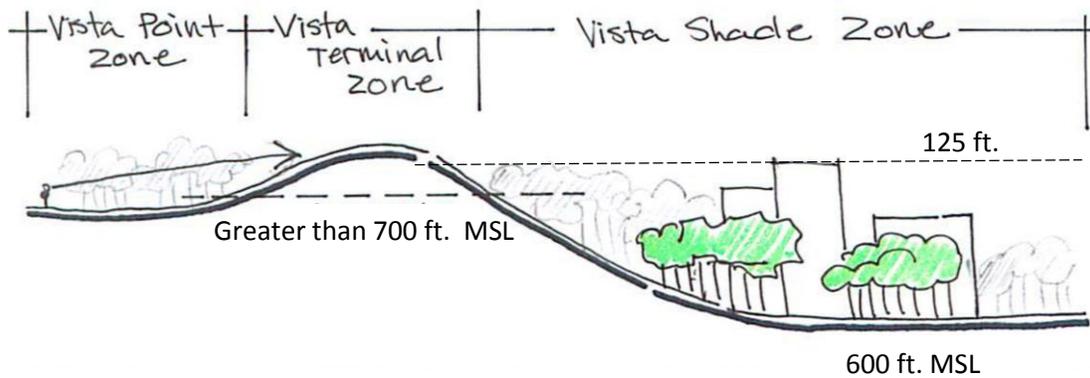


Figure 106: Height Limit Section Drawing

with SH 114 or SH 170, should have streetscape characteristics visually associated with the Town Streets (as identified in the Thoroughfare Plan to follow). The Town Street identity in this Community transitions from the ubiquitous regional qualities of SH 114 and SH 170 to the more rural character of streets in the Pastoral Community.

**3. Regional Community:** An area of Westlake generally lying along SH 114 from Roanoke Road to the east side of Westlake Parkway. The Regional Community is currently undeveloped but completely zoned. This area will host Westlake future growth of retail, office, and higher density forms of residential land use. The Regional Community is largely obscured from views as seen when looking north from the Pastoral Community because it lies north of Vista Terminals identified in the View Analysis. These high elevations in the foreground of such views generally hide the Regional Community area. Also, land within the Regional Community is lower and flatter than most of Westlake. Consequently, the Regional Community is capable of absorbing square footage transferred out of other Community areas without detracting from the visual character objectives of the Town. Therefore,

the Regional Community can accommodate:

- a. Greater Building Height:** The view section diagram above (Figure 106) establishes a view angle that would define a height limit for structures in this area.
- b. Greater Ground Coverage:** The intense use of this area by populations from outside the Town of Westlake makes natural preservation difficult. However, detention needs will provide opportunity for natural amenity, which can likely be developed for more intense use in this context.
- c. Greater Regional Associations and Identity:** Building forms, landscaping, and streetscape will likely have a regional quality. Building design may be more contemporary and/or innovative. Landscaping may be more ornamental and set up for more intensive use. Streetscapes will have a more landmark status associated with visibility from and connection with SH 114.

Increased height, coverage and FAR could support the potential for permitting mixed use parking credits, thereby reducing the total amount of parking apron that more intensive development may require.

Like other Planned Development planning areas, current limitations on FAR and building height make it difficult to capture the regional potentials of this Community. Therefore, the Regional Community becomes a good destination for the transfer of development square footage from other Planned Development planning areas. The Regional Community is shown in grey-blue in Figure 107.

- 4. Town Community:** An area of Westlake generally north of Dove Road and south of Lake Turner. The Town Community is mostly undeveloped, containing a few projects such as Deloitte (attains an FAR less than .2) and Westlake Academy. This area is completely zoned and will host most of Westlake's future resort and hospitality development as well as some level of office and specialty retail. The association of land uses in this area with entertainment and specialty shopping make it important as it supports the residential neighborhoods of the Pastoral Community. Deloitte and Westlake Academy set an appropriate benchmark for development that serves the above described support function. Similarly, resort development will likely have abundant amenity open space(s), thereby reinforcing an overall visual character in which the sense of open space-to-development favors open space. Many of the important considerations that define appropriate development for this region are similar to those discussed in the Commercial Community. Transitions to residential are necessary, which means that open space creates a residential buffer through which more trail connections flow.

The Town Community is served by Town Streets (as shown in the Thoroughfare

Plan to follow), which have a distinctive Westlake Streetscape visually different than the regional circulation system (SH 114 and SH 170 and the associated service roads) but is more visually associated with the Pastoral System (roads of the Pastoral Community). The Town Community is shown as a russet color in Figure 107.

- 5. Town Common:** An area of Westlake located at the interface of the Regional Community, the Town Community, and Open Space, which is served by the Town Road System (as illustrated in the Thoroughfare Plan to follow) and serves as a trail hub for the Town. This area is an organic nucleus for the Town that makes the relationship between other Community elements (described herein) meaningful and "town-like". Without a Town Common or other hub feature, Westlake is missing the key attribute of "town-ness" and is subsequently inorganically divided into two separate settings: one is Commercial and the other is residential. Without such a hub to reconcile connection of these land use areas, the commercial component attaches to SH 114 and the residential component attaches to surrounding cities, like Southlake and Keller. As a result, an unresolved area of partially developed/partially undeveloped space will exist between the two land use areas. A town hub, a specific goal emerging from the Westlake Public Workshops (#1 and #2), reconciles this potential bifurcation of the Town.
- 6. Open Space:** An area of Westlake generally north of Dove Road and extending in an east to west direction from the View Shed/ Commercial Community abutting SH 170 to the View Shed Community abutting SH 114 at Solana Boulevard. This area encompasses the major Vista Terminals

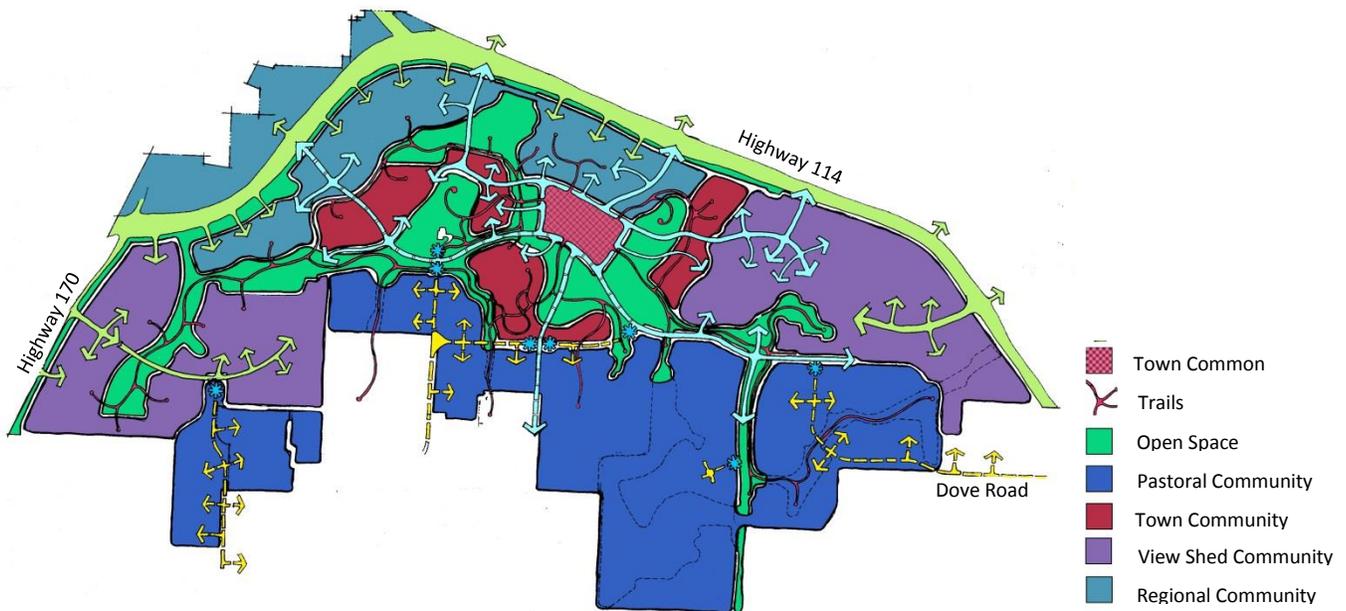


Figure 107: Framework Plan – (base of Communities Map) presented at Workshop #2

and establishes a central open space corridor lying between the Regional Community and Pastoral Community while engaging the Town Community and Town Common. This area functions as a:

- a. **A hub** for trail connections between Westlake's neighborhoods and important destinations within the Town.
- b. **A conservation zone** for key natural features, like water bodies, waterways, and landmark landforms.
- c. **An edge** for Westlake that defines the boundary between Regional Community and Pastoral Community (with the Town Community and Town Common being associated with the open space network).
- d. **A publically accessible amenity, whether visually or physically**, that enhances residential value.
- e. **An appropriate setting** for the educational assets of the Town.
- f. **Recreational asset** for the community and a location for public parks (as defined in the Open Space Plan to follow).

- g. **A micro-setting that defines the streetscape** seen from the primary Town Streets, thereby preserving the pastoral street qualities that Westlake residents seek to preserve.

All of the above functions are potentially negatively impacted by development. Therefore, it is desirable that the Open Space Community is largely undeveloped to remain open and natural. However, existing entitlements do not make provision for such disposition of this property and incentives will be necessary to incentivize the transfer of square footage currently permitted for this area to another Planned Development planning area.

Figure 107 is the Framework Plan that was reviewed at Public Workshop #2, and Figure 108 is the Communities Map, referenced above, which is a result of the revision of the Framework Plan based on input received at that Workshop, input from the Planning Steering Committee, and reconciliation of the Community Types with the Entitlements currently in place. Note that the distribution of Community Types is substantially the same in each map.

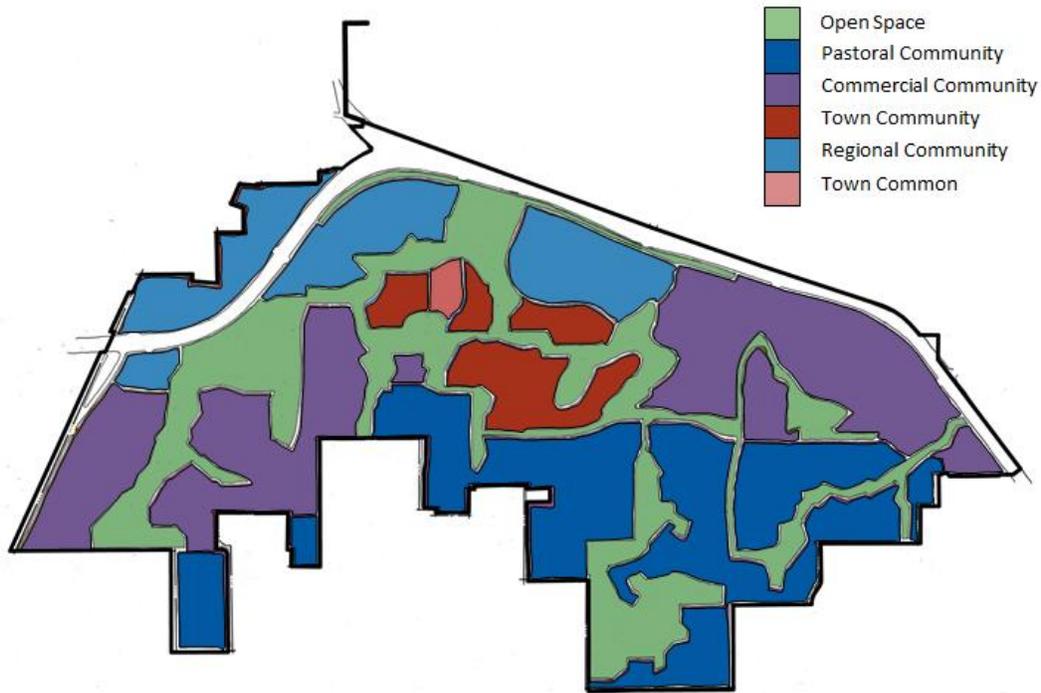


Figure 108: Communities Map – Result of Public Inputs and Existing Entitlements

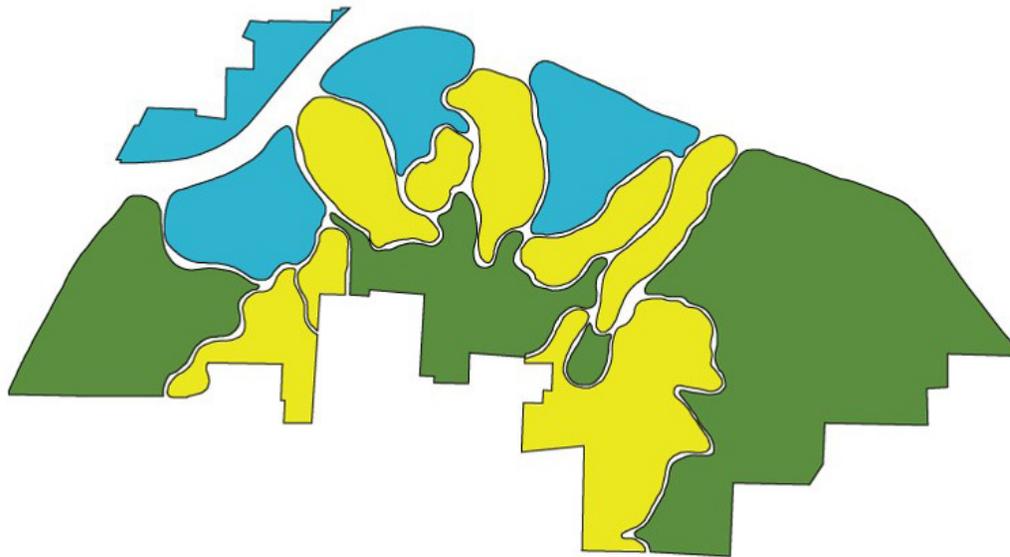


Figure 109: Receiving/Sending Zones in Relation to View Analysis

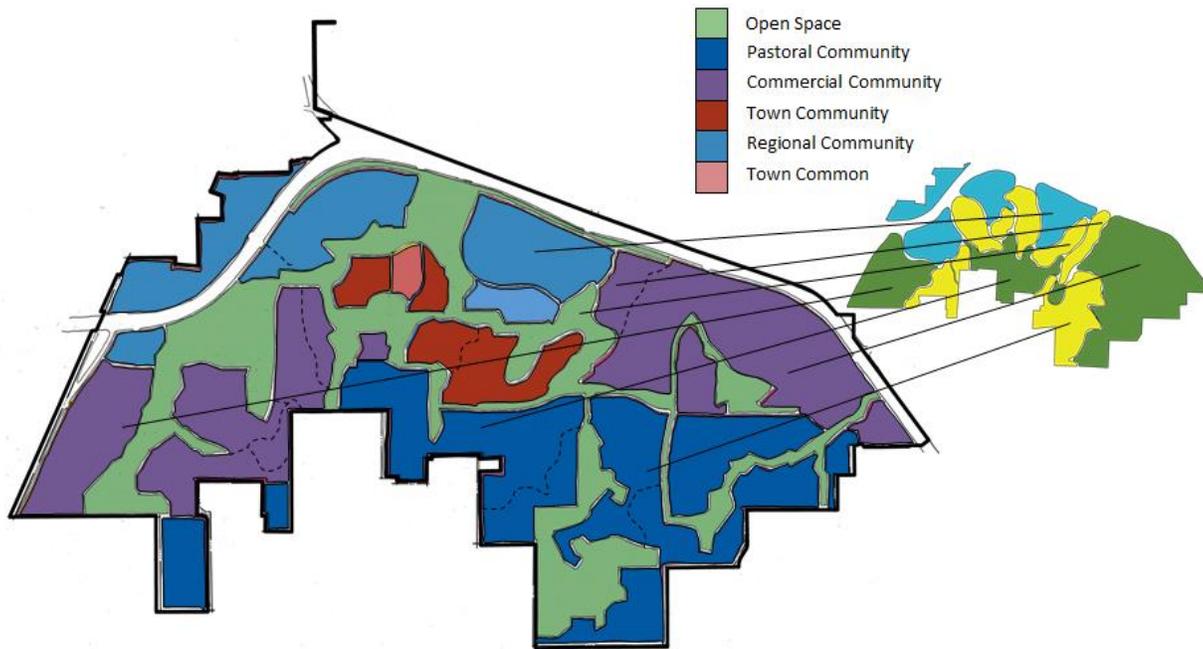


Figure 110: Receiving/Sending Zones in Relation to Community Types

Figure 109 applies the idea of sending and receiving development square footage to the appropriate areas identified in the View Analysis. Figure 110 takes a step further by illustrating the relationship between Communities and the Sending/Receiving Zones derived from the View Analysis. Note that the Communities described as most capable of accommodating the importation of square footage are also located in the view areas that are less visible or farther away from the Vista Point Zones. These are also identified as the Receiving Zones.

Using this Framework evolution as a base, the Land Use Plan addresses the following:

1. **Public Implementations:** The objectives to be achieved through movement of development square footage between sending districts and receiving district for various community types.
2. **Development:** The recommended development height and coverage within the Community.
3. **Land Use:** The recommended land

uses for each district that reinforce the character and intent of the community type engaged (refer to Part One: Policy Tabulations of the Implementation Plan).

4. **Rates:** The rates of transfer between exporting communities and importing communities (refer to Part One: Policy Tabulations of the Implementation Plan).

## THE LAND USE PLAN

The Land Use Plan has three elements that collectively speak to the issue of use within the particular setting of Westlake. As stated earlier, that setting is one in which all vacant land within the Town is zoned by either categorical zoning or Planned Development Ordinance. Therefore, land use, in its most fundamental sense, is legally prescribed by legal instruments that already exist. However, many of these designations are over 20 years old and market conditions have changed since the original requests, making it potentially desirable for land owners to

seek adjustment of that earlier zoning. In addition, this Comprehensive Plan Update asserts that Westlake's favorable Ad Valorem comparison (at build out) with other financially stable cities (such as Highland Park, Texas) tends to make it less important for Westlake to seek additional commercial square footage for financial sustainability reasons. Therefore, it can be viewed that the use of a reasonable portion of the present level of commercial entitlement should be sufficient and that the additional Ad Valorem revenue attained from commercial square footage expansion (through entitlement increase) may not be sufficient to resolve the traffic problems that it will impose on the Town. Although additional entitlement square footage may not be necessary for Westlake (unless a significant public purpose is served), it may be desirable for the existing distribution of entitlement density (building height and coverage) to be relocated within the tapestry of zoning designations (Planned Development planning areas), thereby allowing certain planning areas to increase in response to market conditions and others decrease in response to adjacency issues and other market considerations without financial loss of the entitlement originally granted.

The Land Use Plan (Figure 111) shows 16 Land Use Districts derived from eight basic character districts (tying back to the Community Types presented above and derived from the Framework Plan and community input from Public Workshop #2). Each of the basic eight districts are divided by one of four Land Use suffixes depicting the import/export setting in which it resides, resulting in 16 Land Use Districts. The four suffix types reflect the view setting in which the district resides and, thereby, its suitability for import or export of commercial square footage and general sensitivity to development. The eight basic Land Use Districts and the four

applicable suffix types (resulting in the 16 Land Use Districts) are:

**1. Open Space Dominant**

- a. District Type: **Open Space (OP)**. The area encompassing the major Vista Terminals and other natural assets and provides the general transition space between what is residential and what is commercial within the Town. It is desirable that the Open Space area be undeveloped, although a certain level of educational development may be compatible.
- b. Suffix Variations: There are no suffix variations for Open Space.

**2. Residential Dominant:**

- a. District Type: **Pastoral Community (PC)**. This area that will experience most of the Town's future single-family residential growth. Compatibility with existing high-end residential development is important.
- b. Suffix variations:
  - i. **PC-A:** Indicates location within the View Shed Zone
  - ii. **PC-B:** Indicates location within the View Corridor Zone

**3. Low to Mid-Density Office Dominant:**

- a. District Type: **Commercial Community 1 (CC1)**. The areas lying close to SH 114 yet still part of the visual fabric as seen from higher elevations of the Town. In the future, this area will host larger campus office/mixed use projects (much like today's Solana).
- b. Suffix variations:
  - i. **CC1-A:** Indicates location within the View Shed Zone and, therefore, visually present in the views and vistas of Westlake.
  - ii. **CC1-B:** Indicates location within the View Corridor Zone and, therefore, visually present in

many views and vistas as well as associated with existing creekways. Development in this area should be responsive to the visual and hydrologic sensitivities of this zone.

#### 4. Campus Office Dominant:

- a. District Type: **Commercial Community 2 (CC2)**. This area, generally lying south of SH 114 and east of SH 170, will experience most of the Town's future office campus development.
- b. Suffix Variations:
  - i. **CC2-A**: Indicates location within the View Shed Zone and, therefore, visually associated with the pastoral area, justifying considerations regarding compatibility.
  - ii. **CC2-B**: Indicates location within the View Corridor Zone and, therefore, visually present in many views and vistas as well as associated with existing creekways. Development in this area should be responsive to the visual and hydrologic sensitivities of this zone.
  - iii. **CC2-C**: Indicates location within the Vista Terminal Zone and is, therefore, visually sensitive. Commercial development in this area has the greatest visual impact on the residential fabric.
  - iv. **CC2-D**: Indicates location within the View Shade Zone and is visually obscured from most views and vistas, thereby allowing greater commercial association.

#### 5. Campus Office/ Residential Hybrid Dominant:

- a. District Type: **Commercial Community 3 (CC3)**. This area, generally south of Solana Boulevard, will also experience future campus

development, although it also contains some residential potential (as specified in the existing Planned Development Ordinance for PD 1 and its amendments PD1-2 and PD1-3).

#### b. Suffix Variations:

- i. **CC3-A**: Indicates location within the View Shed Zone and, therefore, visually associated with the pastoral area, justifying considerations regarding compatibility.

#### 6. Resort, Commercial Transition, Residential Mix, and Specialization Dominant:

- a. District Type: **Town Core (TC)**. This area is located in the heart of existing commercial entitlement area and is suggested as an area in which to locate that commercial development most supportive of functioning as a central hub for Westlake. This could include vertical mixed-use, entertainment, and/or specialty retail.
- b. Suffix Variation:
  - i. **TC-A**: Indicates location within the View Shed Zone and, therefore, visually associated with the pastoral area. More campus-like development pattern with generous open space (as seen with the development of the Deloitte site) is appropriate.
  - ii. **TC-B**: Indicates location within the View Corridor Zone and is, therefore, visually sensitive to vertical development. In addition, development here should be responsive to the presence of water ways and water bodies by allowing such natural features to exist in a more natural state. This area has a special sensitivity to FAR, coverage and building height.

- iii. **TC-D:** Indicates location within the View Shade Zone and is, therefore, visually obscured from most views and vistas, allowing greater design and density flexibility. A portion of this area is currently zoned as R-1 and O but is surrounded by office, mixed-use commercial, and resort use. The residentially zoned portions of this district could be exchanged with other commercial entitlement to aggregate commercial in this area and expand residential in the residentially contiguous zones.

**7. Town Hub and Town Activity Center:**

- a. District Type: **Town Common (TCO).**  
This area will be flanked by future resort, specialty commercial, entertainment, mixed residential, and office development. Uses in this area are responsive to the Town Common and open space that could surround them and serve meaningful to both the Town and regional interests.
- b. No Suffix Variations:
  - i. **TCO:** Located north of the Westlake Academy, encompassing the landmark landform in that area as well as the hillside down to Lake Turner. The visual prominence and central location of this area makes it ideal as a place for expression of civic activity/identity/community. Such purpose and location makes this area sensitive to vertical development, which would encroach upon it and, thereby curtail its use or preservation of the landmark landform it encompasses.

**8. Higher Density Commercial Dominant:**

- a. District Type: **Regional Commercial (RC).** This area will likely experience demand for the most intense commercial development due to its association with SH 114 and access capacity due to Westlake Parkway.
- b. Suffix Variations:
  - i. **RC-B:** Indicates location within the View Corridor Zone and is, therefore, visually present in many views and vistas as well as associated with existing creek ways. Portions of this area are currently zoned "O" but such uses here would be surrounded by office, mixed-use commercial, and resort use. Commercial continuity in this area is deemed a desirable land use objective.
  - ii. **RC-D:** Indicates location within the View Shade Zone and is, therefore, visually obscured from most views and vistas. Buildings in this location can be considerably taller than currently permitted. Commercial aggregation in this area is deemed a Land Use objective, especially when it promotes and incentivizes lower density commercial (with a greater proportion of open space) in other areas. Further, it is likely that higher density development will be more regionally associated (attracting vehicular trips in and generating trips out from regional locations). Therefore, this component of Westlake's fabric is logically located closer to the regional access points.

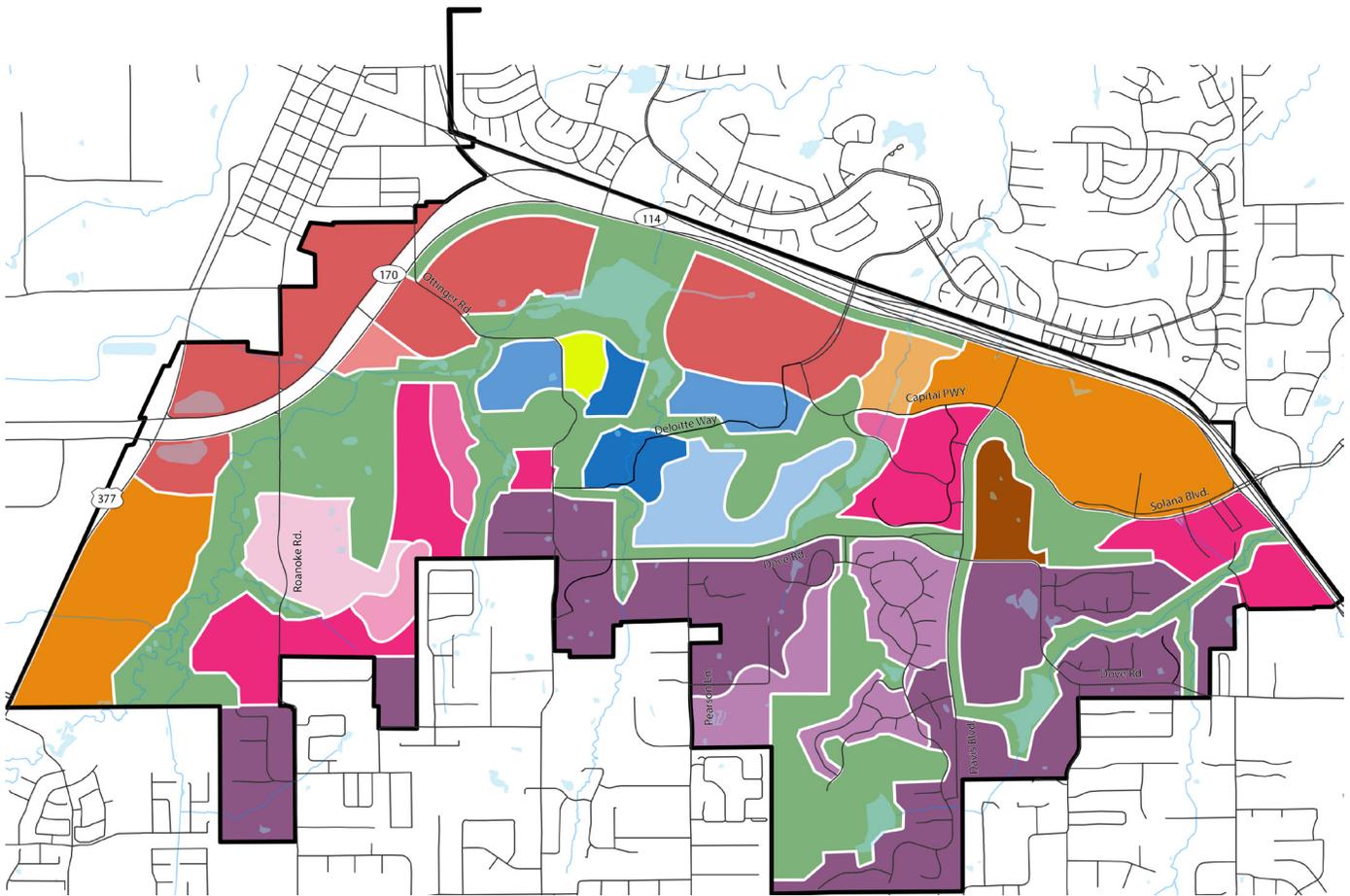


Figure 111: Westlake Land Use Districts

DISCLAIMER: The land use districts shown on this map in no way modify the permitted uses and/ or conditions of use (FAR, building height, etc.) specified in any zoning or Planned Development Ordinance approved by the Town of Westlake. These land use districts are intended to guide the Council in their evaluation of site plans submitted for their approval and/ or property owner requests to transfer commercial square footage from one land use district to another when the legal mechanism for such transfer has been adopted by the Town of Westlake. See Policy Section A in the Implementation Document for rates of transfer, trigger points, and other implementation language.

Figure 111 illustrates recommended spatial distribution of these Land Use Districts within the Town of Westlake:

**Description and Visualization of the Character Districts:**

The following section presents a description of each Land Use Character District, explaining the intent and desired qualities of development in each area. Each block also presents pictures meant to further explain the attributes of preferred development.

- PC-A: Pastoral Community/ View Shed Zone
- PC-B: Pastoral Community/ View Corridor Zone
- CC1-A: Community Commercial 1/ View Shed Zone
- CC1-B: Community Commercial 1/ View Corridor Zone
- CC2-A: Community Commercial 2/ View Shed Zone
- CC2-B: Community Commercial 2/ View Corridor Zone
- CC2-C: Community Commercial 2/ View Terminal Zone
- CC2-D: Community Commercial 2/ View Shade Zone
- CC3-A: Community Commercial 3/ View Shed Zone
- TC-B: Town Core/ View Corridor Zone
- TC-D: Town Core/ View Shade Zone
- TC-A: Town Core/ View Shed Zone
- RC-D: Regional Commercial/ View Shade Zone
- RC-B: Regional Commercial/ View Corridor Zone
- TCO: Town Common
- Open Space



**District Type: Open Space (OS)**

**Character Statement:** Westlake resides at the geologic break between the uplands (extending south into Keller) and the lowlands (sweeping north toward Lake Grapevine). Eroded landforms perched at the terminus of a rolling topography that gives way to flatter pastures is the identifying natural character of Westlake, which is also the composition of characteristic views and vistas cherished by Town residents. The Open Space Land Use District contains much of this identifying landscape and the waterways associated with it. The intent of the Open Space District is to preserve vistas and view corridors and, thereby, preserve the essence of Westlake's pastoral setting

as it experiences increasing amounts of commercial and residential development. The Open Space Land Use District is meant to be primarily undeveloped with the landmark landforms of the Town remaining in their natural condition, thereby preserving important views as well as natural and rural settings. Where it is not feasible to have an undeveloped condition, FAR's in this area should be similar to those already attained at the Deloitte University site so that large portions of any development tract are open, undeveloped, and used for the creation of retention ponds and other natural features that enrich Westlake. Flood plains and waterways should be aggressively preserved and remaining tree communities/wooded areas protected.



**District Type: Pastoral Community (PC)**

**Character statement:** Most of Westlake's residential development to date can be characterized as large homes situated on large landscaped lots where homes are sited in ways responsive to features of the lot, instead of the street. The overall character is one of a dominant landscape and houses arrayed within it, rather than houses with lots (as is common to most suburban development). Lots are generally an acre or larger with homes set well back from the street. Homes are limited to two stories in these areas and densities are one unit or less per

acre. However, smaller lot sizes could be compatible with this character if such lots are clustered and surrounded with open space so that the gross density remains one dwelling unit per acre. The sense of open land is more essential than lot size. The Pastoral Community is predominantly residential with some institutional uses and office campus uses where the FAR is .1:1 or less. Informal lot landscaping replaces rigid street landscaping, giving more visual presence to the natural ground plane than the roadway. Preservation of current home values is key to future residential development.



### **District Type: Commercial Community 3 (CC3)**

**Character Statement:** The Community Commercial 3 Land Use District is similar to the Community Commercial 2 Land Use District except that it has already permitted residential land uses within it. Therefore, residential adjacency is an important issue of this District. Commercial development of the Community Commercial 3 District is meant to be more “office campus”-like development, wherein the corporate addresses are essentially corporate estates sitting on large landscaped sites in a manner similar to the Pastoral Community residential patterns. FAR’s in this District will be lower than the .4 to .45:1 embedded in most Planned Development Ordinances. FAR’s should be similar to levels of development seen at Fidelity Investments;

however, FAR abutting residential should be lowered through the employment of added landscape buffers. Detention facilities as required for commercial development should be retention ponds located so as to be in the public view. A larger percentage of site open space, building heights not exceeding four stories, natural and drifted landscape, and retention ponds visible to the public view are characteristics of the Community Commercial 3 Land Use District. The Community Commercial 3 Land Use District is a building height and coverage sending zone. It is encouraged that exportation of building square footage be for the purpose of supporting low FAR’s with more open space or conversion from commercial to transitional residential use (as per the Housing Plan to follow) in areas that abut existing residential zoning.



## District Type: Community Commercial 2 (CC2)

**Character Statement:** The Community Commercial 2 District generally lies between the Community Commercial 1 Districts and the Pastoral Community Districts. Therefore, the Community Commercial 2 District is meant to be a land use density transition from highway fronting commercial use to landscape dominated residential use. Therefore, building height and the amount of open land surrounding commercial uses in this area is important. Commercial development of the Community Commercial 2 District is meant to be more “office campus”-like development, wherein the corporate addresses are essentially corporate estates sitting on large landscaped sites in a manner similar to the Pastoral Community residential patterns. FAR’s in this district will be lower than the .4 to .45:1 embedded in most Planned Development ordinances. FAR’s should be similar to levels of development seen at Fidelity Investments. However, that small segment of the Community

Commercial 2 District located in a View Shade Zone can tolerate development that somewhat exceeds currently permitted levels. Further, another portion of the Community Commercial 2 District is located in the high ground of a view terminal. In this case, efforts should be taken to preserve the landform by exporting development density to another Land Use District as identified in the Land Use Plan (CC-1, TC-1 TC-2, or RC). Detention facilities as required for commercial development should be retention ponds located so as to be in the public view. A larger percentage of site open space, building heights not exceeding four stories, natural and drifted landscape, and retention ponds visible to the public view are characteristics of the Community Commercial 2 District. This District is a building height and coverage sending zone. It is encouraged that exportation of building square footage be for the purpose of supporting low FAR’s, more open space or conversion from commercial to transitional residential use (as per the Housing Plan to follow) in areas that abut existing residential zoning.



### **District Type: Community Commercial 1 (CC1)**

**Character Statement:** Much of the Community Commercial 1 Land use District lies along SH 114, generally east of Westlake Parkway, and along SH 170, generally west of Roanoke Road. This area is a transitional zone between the highways and the Community Commercial 2 and 3 Districts. In a Community Commercial 1 District, the value of highway frontage can be captured to an extent that does not adversely encroach upon the view sheds extending north east and north west from higher elevations southward in the Pastoral Community. Buildings in this location can be somewhat taller than building heights in the Community Commercial 2 and 3 Districts, with greater coverage. Portions of the Community Commercial 1 District fall within a Corridor View Zone that follows one of Westlake's existing creekways. In these areas building heights

should remain low at approximately four stories. However, other SH 114 and SH 170 frontage areas within the Community Commercial 1 District can have taller structures (approximately seven stories or 80 feet). At these freeway frontage locations, FAR's can be higher than other Community Commercial Districts. While not urban, the intent of the Community Commercial 1 Land Use District is to project a freeway identity for Westlake at the portals leading to its residential areas that is more office park-like in its character while still responding to the value potentials of the highway locations. Six and seven story buildings with well-designed native landscapes (use of water features in the landscape that are visible from the highway), parking hidden from freeway view, and a void to solid ratio not exceeding .7:1 (greater solid than void) characterize the Community Commercial 1 Land Use District.



### District Type: Town Core (TC)

**Character Statement:** The Town Core Land Use District is a context district that supports the Town Common District. This means that it serves the viability of Town Common through supporting hospitality, entertainment, and office uses. The Town Core District is also a transitional district, transitioning from the regional commercial scale of the Regional Commercial District (to the north and west of the TC area) to the Town Common and Community Commercial Districts (generally south and east of the TC area). Portions of this district are located in the View Shade Zone and, therefore, appropriate for the importation of building square footage, as building

heights exceeding five stories can be accommodated here. Portions of the Town Core District falling within a View Shed or View Corridor Zone should retain lower building heights in the four story range. While not urban, the Town Core district has a more conventional street relationship than Community Commercial Districts have, and the associations with the street are active (including drives, premise signs, trails/sidewalks, parking, visible porte-cocheres, and other features such as flag islands, etc.). More street engagement, more composed landscaping, transitional FAR's, and void to solid ratios about .7:1 (more solid than void) are characteristics of the Town Core Land Use District.



### District Type: Town Common (TCO)

**Character Statement:** The civic and social identity of Westlake is embodied in this district. The Town Common Land Use District also expresses the pastoral identity of the Town. The Town Common District is the hub of local activities as envisioned in the Planning Public Workshops, converging upon a pedestrian friendly environment. This District is a place for expression of civic-ness, a place for gathering, festive and ceremonial events, and family outings; all while being close to the Academy and recreation facilities of a school park. The Town Common contains one of Westlake's most dramatic Landmark Landforms. The steep slopes dropping from the hill top, toward the Regional Community Land Use District are difficult for development but well suited for scenic purpose. The

Town Core Districts, which flank the Town Common on the east and west, have a potential to energize use of the Town Common. Entertainment and higher density residential land uses in these abutting areas reinforce a sense of hub importance.

The urban-ness of the Regional Commercial Districts transitions through the Town Core District and Town Common to blend with the single-family residential character of the Pastoral Community. Public facilities located here should be designed in a style derived from agricultural references that remember Westlake's heritage. Needed public parking should be treated in a manner that allows the parking area to have ecological significance (such as the bio-swale parking area at Arbor Hills Nature reserve in Plano).



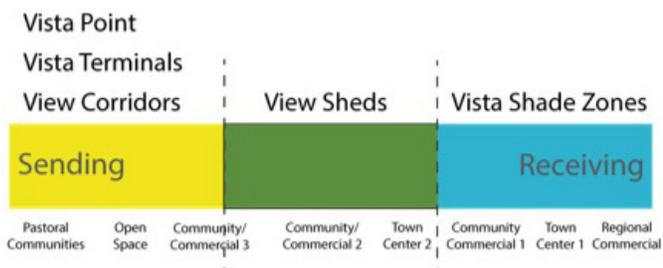
**District Type: Regional Commercial (RC)**

**Character Statement:** The Regional Commercial District is the most intense commercial district in Westlake. It is viewed as the primary receiving district for movement of commercial square footage out of Community Commercial and Town Core Districts where more open space, undeveloped site area, and lower buildings are sought. The Regional Commercial Districts can accommodate buildings in excess of eight stories (in some areas). Lying along SH 114 and SH

170, the Regional Commercial Land Use District is served by the regional corridor more than the Town Arterials. Taller buildings, wider streets, more intense parking, parking structures, formal street landscaping, active building to street relationships, connected parking aprons, higher light levels, and a void to solid ratio of 1:1 (a balance of solid and void) are characteristics of this site. Higher levels of development density and greater highway visibility call for establishing an overarching architectural continuity and other site design compatibilities.

## Summary of Exporting and Importing Districts:

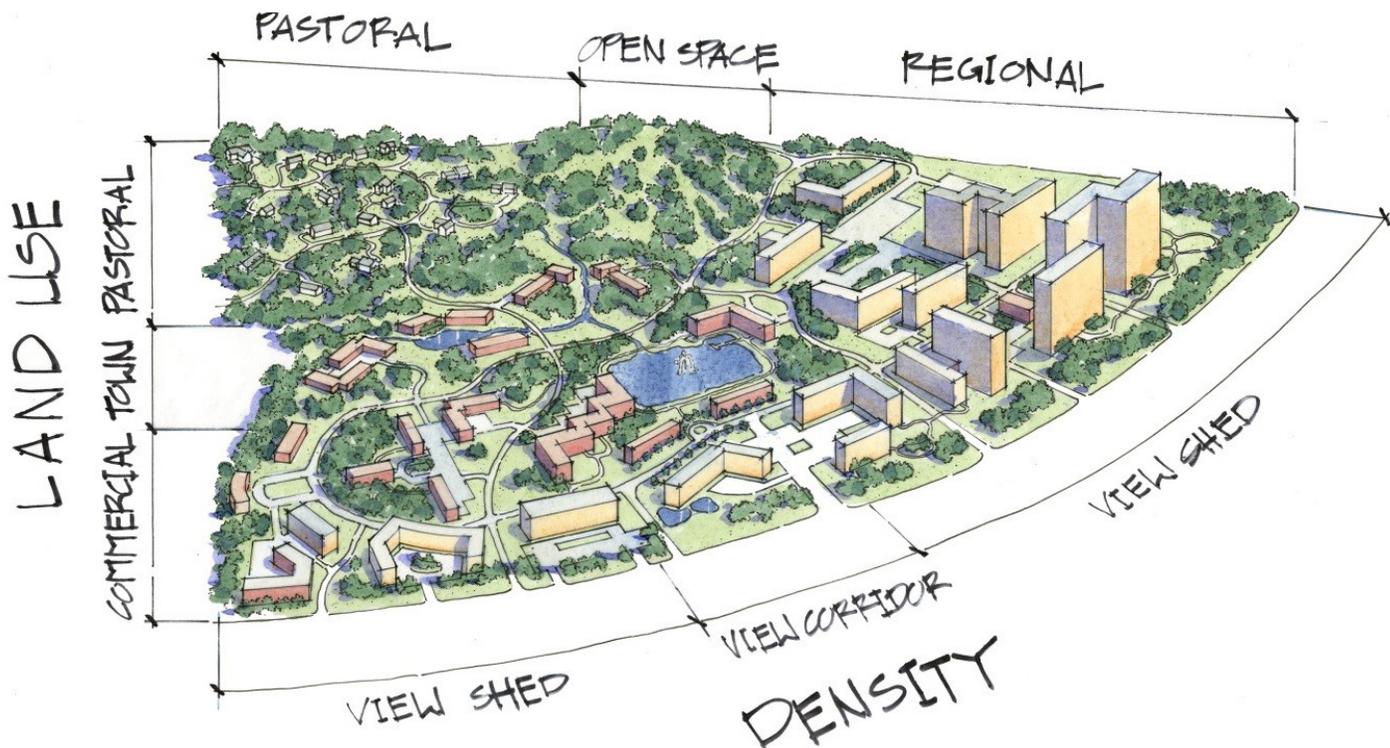
The following diagram illustrates the relationship of the basic Land Use District Types and the earlier described suitability of export or import commercial square footage. Note that the Open Space and Community Commercial Districts are most suitable for exportation while Regional Commercial and Town Core are most suitable of importation.



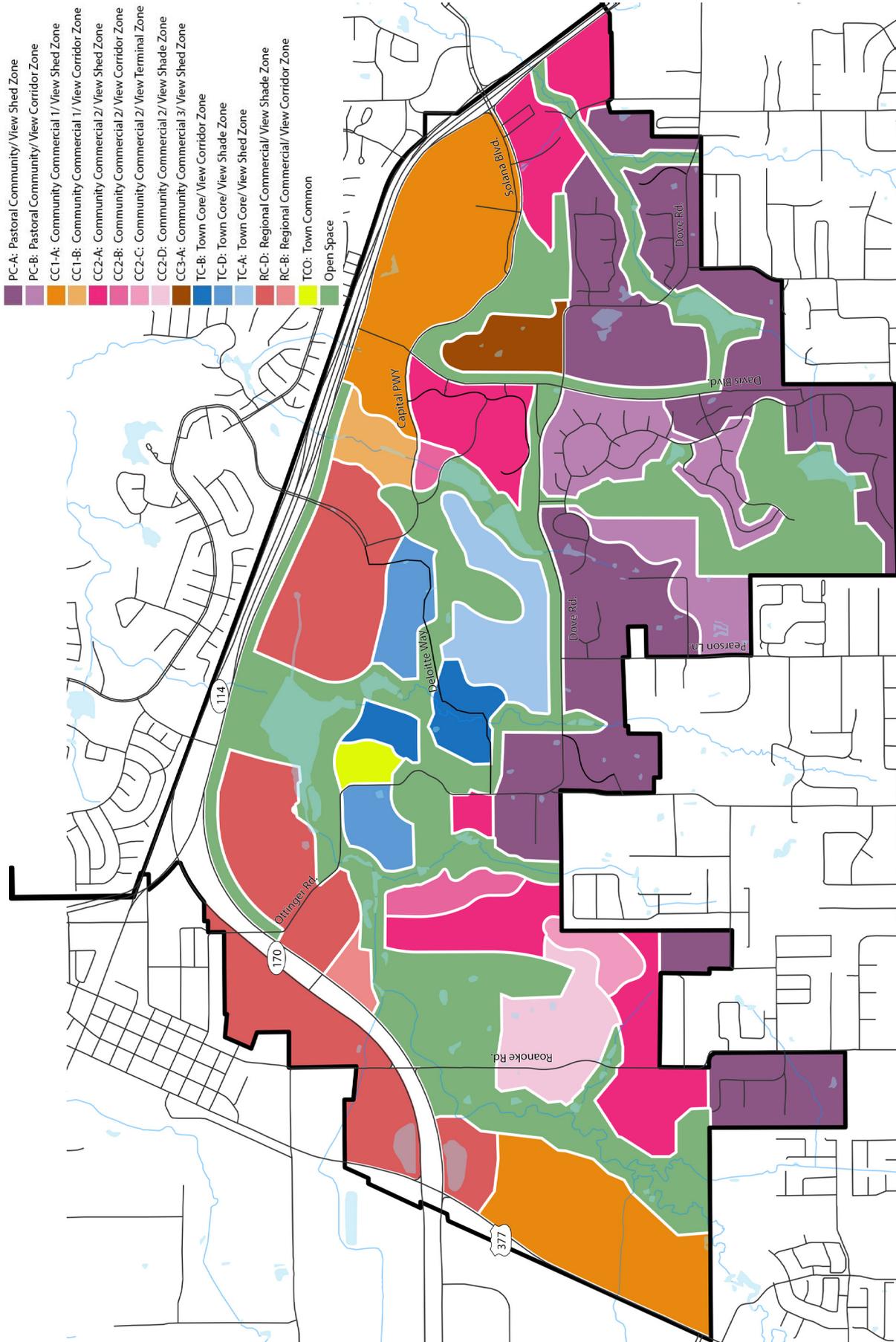
Use Recommendations, Development Conditions, and Export Ratios by Land Use District are described in detail in the Implementation Document.

## CONCLUSION

This Land Use Plan seeks to further the Goals and aspirations for the Citizens of Westlake as presented in the Public Planning Workshops. Therefore, this Land Use Plan builds upon the recognition that market conditions in 2014 are significantly different than market conditions in 1992 and that such change of condition will likely motivate owners of undeveloped property to seek augmentation of their current zoning ordinance. Therefore, this Land Use Plan is meant to be a guide in discussions when considering such requests by seeking to identify pathways to a positive response that does not further burden the Town with additional traffic and/or facilities demand.



# THE LAND USE PLAN



**DISCLAIMER:** The land use districts shown on this map in no way modify the permitted uses and/or conditions of use (FAR, building height, etc.) specified in any zoning or Planned Development Ordinance approved by the Town of Westlake. These land use districts are intended to guide the Council in their evaluation of site plans submitted for their approval and/or property owner requests to transfer commercial square footage from one land use district to another when the legal mechanism for such transfer has been adopted by the Town of Westlake. See Policy Section A in the Implementation Document for rates of transfer, trigger points, and other implementation language.





## **PART THREE: THE PLAN ELEMENTS**

### **SECTION TWO: THE THOROUGHFARE PLAN**

#### **INTRODUCTION**

The Thoroughfare Plan Element of the 2015 Comprehensive Plan Update is intended to lay out a clear long-term plan for the safe, efficient movement of people and goods in and around Westlake while providing the underlying framework for growth and development. The Thoroughfare Plan addresses the proposed Thoroughfare Plan Network, roadway typology, development of finer grain networks and access management, alternative modes and regional coordination.

#### **Driving Forces**

The Assessment portion of this Comprehensive Plan Update (Part One) presents a number of existing conditions including key issues and emerging challenges with respect to Westlake's transportation system. These conditions represent the driving forces behind the development of the Thoroughfare Plan as it both guides and supports the Comprehensive Plan as a whole. Driving forces include:

- **Street Network Capacity** -Discontinuities

within, and the limited extent of, the existing street network clearly lacks sufficient capacity to accommodate the increase in travel demand associated with entitled development currently in place. In addition to improvements to existing streets such as Dove Road, several new facilities will need to be added between the present and build-out. Approaches to Thoroughfare planning, generally pursued to date, view Westlake as shifting away from the type of internal connectivity recommended in this Plan and rely, instead, on external perimeter roadways such as SH 144 and SH 170 to move locally-oriented traffic. However, Highway 114 is already functioning at its capacity, and there are no planned capacity improvements in the works by NCTCOG or TxDOT. Therefore, continued dependence upon Highway 114 and Highway 170 to carry the traffic that current entitlements could generate will lead to considerable congestion and an inconvenience for the people of Westlake.

- **Freeway/Interchange Capacity** - A majority of trip attractions generated by new non-residential development (yet to be built) will emanate from outside of the Town. Many of these trips will access the Town via SH 114. Additionally, the Town will continue to experience pass-through activity from trips originating in communities to the south that are destined for SH 114. This has direct implications for SH 114 and associated interchanges and their ability to handle significant increases in traffic volume, which is already operating at or very close to capacity. As stated above, continued reliance on SH 114 will have unintended consequences for Westlake.

- **Connectivity** – Transportation networks in which all development connects directly to a few arterials is a very inefficient system. As Westlake develops and expands its transportation network, the Town must establish a robust, well-connected street network that integrates arterials, collectors and local streets. As Westlake moves toward build-out, it must shift from a system that serves individual developments (the result of dependence upon private development plans to address town-wide traffic issues) to one that considers the Town System as a whole, including a hierarchy of functional elements that are well-integrated/connected.
- **Opportunity to Shape Growth** – Given that a majority of the Town is yet to be built, there exists a golden opportunity to shape Westlake's growth in the desired pattern from the outset, rather than simply trying to "fix" in-place problems (like other more developed cities). This opportunity to shape future growth includes the design of the future transportation system. The public sector is in a unique position to initiate necessary coordination between private property owners for the better of the system as a whole. With up to 25 million square feet of private development entitled and planned for land owned by just a handful of entities, Westlake is in a unique position to facilitate a high degree of coordination.
- **Transit** – Serious consideration should be given to transit service as the Town grows. This includes regional transit service for commuters who desire alternatives to driving as well as local service for mobility within the Town. Transit needs will become greater as traffic congestion increases. Regional

transit service has the tendency to develop along major highway corridors, which is where most nodal development tends to locate. Given its location on SH 114, Westlake will more than likely see regional transit service at some point and must give consideration to how this will impact the Town as a regional destination.

- **Bicycles and Pedestrians** – As new transportation networks are planned, designed and built, consideration should be given to how bicycles and pedestrians are accommodated. Communities across the nation are experiencing an increase in the demand for walking and cycling, not only for transportation but as an essential element of an active lifestyle. Continued success as a center for corporate headquarters and upscale commercial development will, in part, be determined by its lifestyle offerings. Westlake has the opportunity to become one of the more bicycle and pedestrian friendly cities in the region by planning and designing streets that accommodate a range of users.
- **External Coordination** – The issues and opportunities considered in this assessment have implications for entities outside of the Town, whether it be adjacent communities (such as Keller and Southlake) or regional transportation providers (such as NCTCOG). Westlake's entitled development and market potential make it a regional shopping, entertainment and employment destination, generating significant regional travel patterns. As the Comprehensive Plan moves forward, some degree of regional coordination will be necessary.

## THOROUGHFARE FRAMEWORK PLAN

Analysis performed for the Comprehensive Plan Update shows that the entitlement currently granted to properties in Westlake is approximately 25 million square feet of non-residential use equating to more than 460,000 new daily trip productions and attractions. However, recent development constructed within the Town has not made full use of entitlement allowances for a particular property. Therefore, the Thoroughfare Plan is based upon the assumption that approximately 72 percent of entitled development will ultimately be built (hereinafter refer to as the "Planning Build-out").

Even under this conservative estimate of future growth, over 315,000 new trip productions and attractions will be generated at Planning Build-out, most of which will originate from outside of Westlake. Clearly this represents a fundamental change in travel demand over what exists today.

The Thoroughfare Framework Plan lays the ground work for new roads, the transformation of some existing streets and the preservation of others.

To accommodate the significant amount of traffic associated with the Town's growth, a robust and interconnected street network is necessary. To that end, the Thoroughfare Framework Plan includes several key components, including:

### North-South Street Network

A system of parallel north-south streets are intended to to accommodate up to 200,000 new trips per day from Keller,

# Estimated Traffic Flows at Buildout

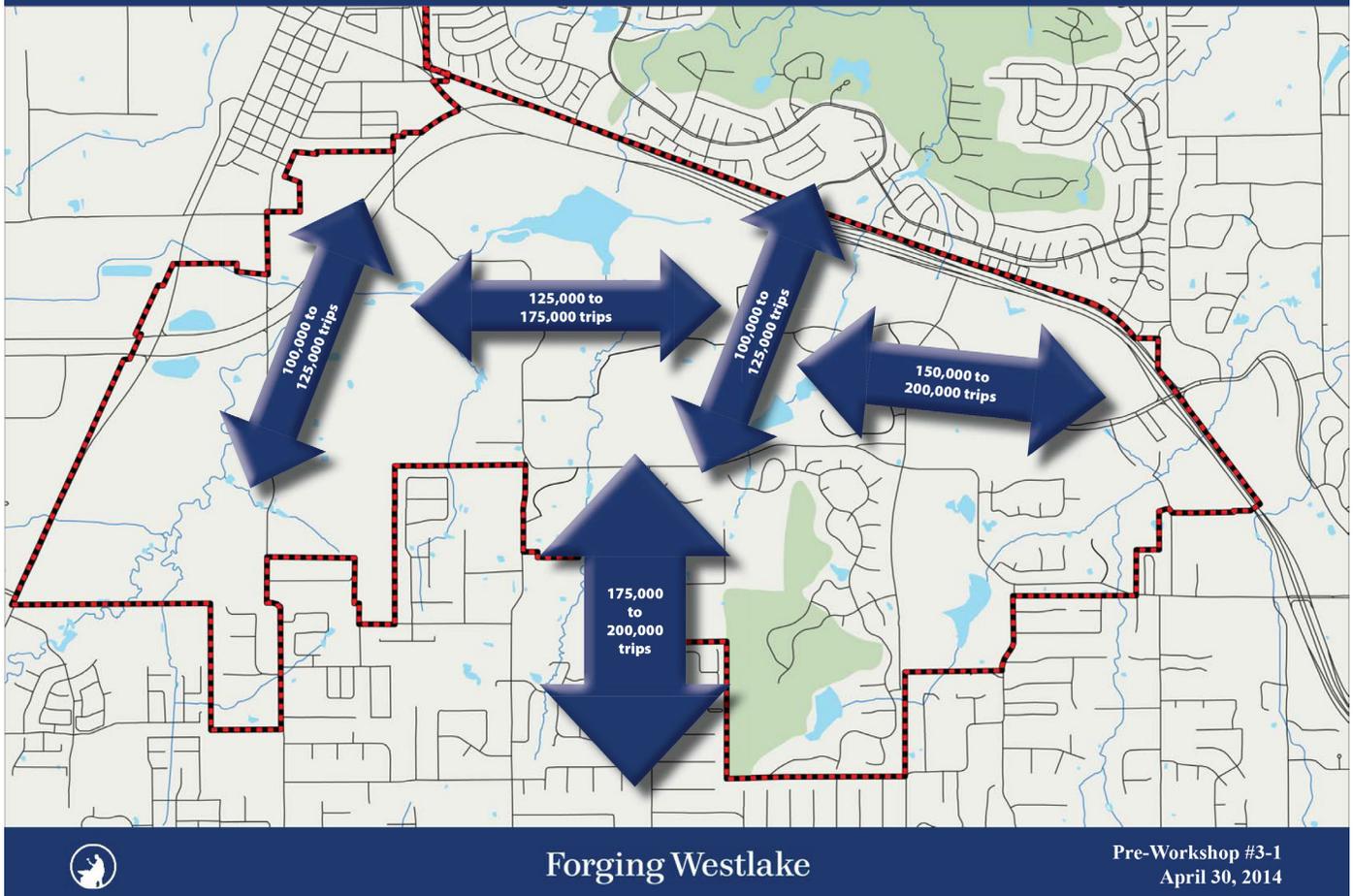


Figure 112: With so many more trip attractions than productions, a majority of Westlake's traffic will originate from outside of the Town.

Southlake and other communities to the south and SH 114, Trophy Club and other communities to the north. Davis Boulevard/ Precinct Line Road will carry much of this traffic, but northward extensions of Pearson Lane and Ottinger Road are necessary to accommodate projected volumes and to provide a well-balanced and well-connected transportation network. An additional north-south connection is made through a new street that begins at SH 144, parallels SH 170 and connects to US 377. Actual north/ south capacity will be dependent upon the extent to which north/ south continuity is ultimately achieved. Due to the constraints of existing

zoning and Planned Developments, specially designed roadway segments may be necessary to enhance the function of an unavoidable offset intersections. The places where special design focus is required are indicated on the Thoroughfare Plan recommended in this Plan Element chapter.

## East-West Street Network

A system of east-west streets originally intended to accommodate from 125,000 to 200,000 trips per day to and from SH 114, SH 170 and US 370. This is achieved through a continuous east-west street

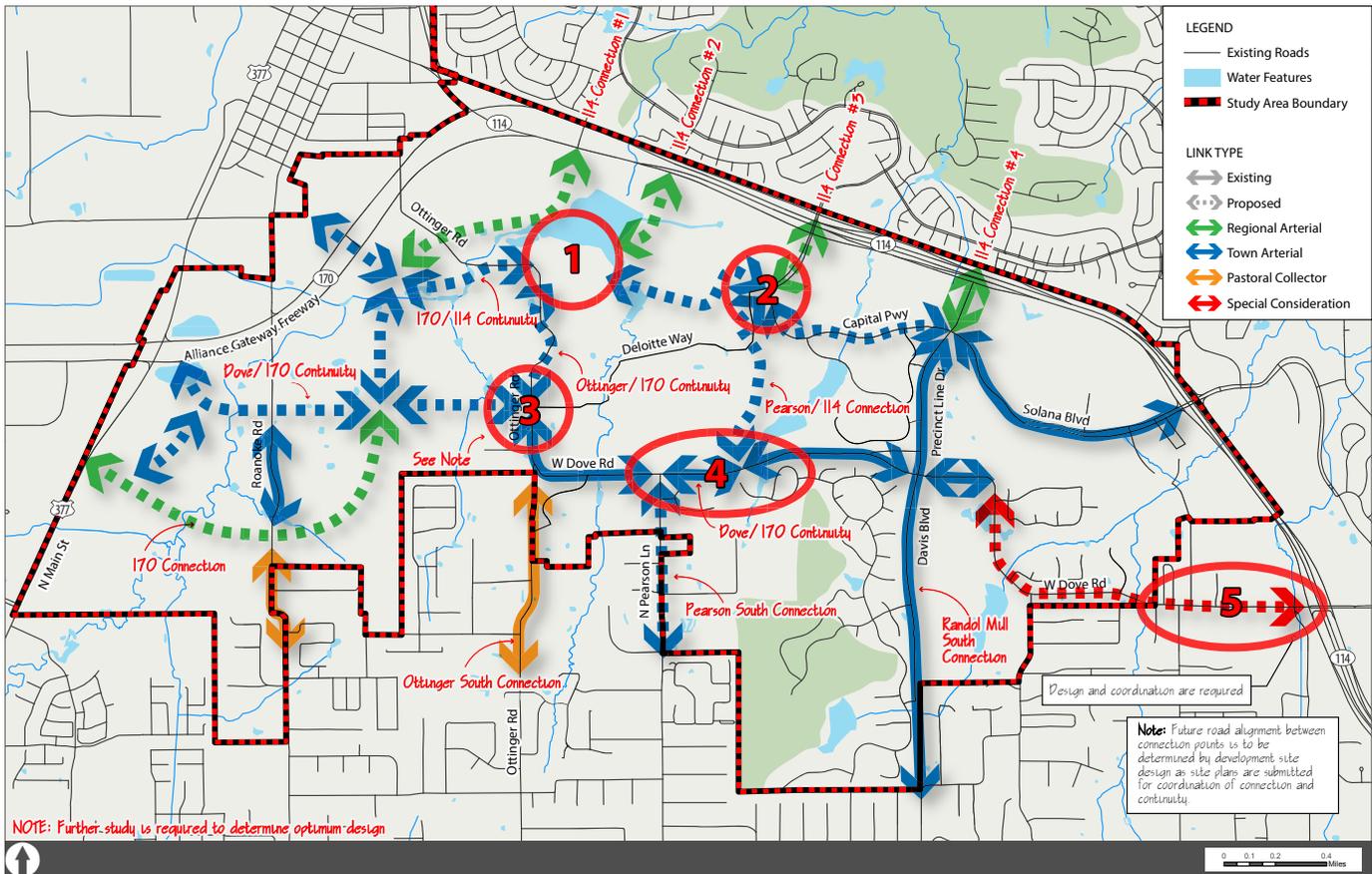


Figure 113: Thoroughfare Plan

Disclaimer: Future road alignment between connection points is intended to serve the projected use of Westlake entitlements and is to be determined by development site design as site plans are submitted for coordination of connection and continuity. Therefore, final road alignments may differ from this Plan. Should road and intersection service thresholds defined in the Plan not be attained, the whole system as shown may not be built. See Policy Section B in the Implementation Document for roadway thresholds, trigger points, and other implementation language.

that begins at Solana Boulevard at SH 114 and continues westward through Capital Parkway. Beyond Capital Parkway, a new alignment would extend further westward to SH 170. A second, parallel street is formed through the westward extension of Dove Road (beginning at the west end of the currently improved Dove Road), crossing Ottinger Road and connecting to SH 170. Actual east/ west capacity will be dependent upon the extent to which east/ west continuity is ultimately achieved. Due to the constraints of existing zoning, Planned Developments, or neighborhood concerns, specially designed roadway segments may be

necessary to enhance the function of an unavoidable offset intersections or visual character of improvements to existing streets. The places where special design focus is required are indicated on the Thoroughfare Plan recommended in this Plan Element chapter.

## THE THOROUGHFARE PLAN

The above Plan shows the Thoroughfare Plan as a Framework of North-South and East-West connections (with indication of areas where special design focus is required), which create a system of movement for Westlake is intended to

addresse the anticipated trip demand and the other issues described above. The converging arrow heads indicate key connection points and the dash lines indicate key connections.

**Green** connections are Regional Links, **Blue** connections comprise the Town System, and **Tan** connections show the Pastoral Roadways. **Solid lines** indicate the portions of the proposed Thoroughfare Network already built. **The circle** just north of the Dove Road/ Ottinger convergence indicates a need for special design treatment that will allow this offset intersection configuration (the eastward extension of Dove offset from the western extension of Dove) to accommodate the potential trip volumes it may experience.

### **Diversion of Traffic from Dove Road**

One of the overwhelming desires expressed by the community during the course of public outreach for the Plan is for the easternmost portion of Dove Road, beginning at the GlenWyck neighborhood, to remain pastoral in character. Because of its connection to SH 114, Dove Road is a natural draw for traffic, a condition that will only become exacerbated over time as Westlake grows. Therefore, the road segment extending east from Davis to the eastern town limits of Westlake is identified as a Roadway of “Special Consideration”. A “Special Consideration” designation identifies roadway sections within the 2015 Thoroughfare Plan that meet the following conditions:

- Presents potential to be perceived as having an adverse effect on adjacent properties;
- Provides street capacity likely needed to accommodate projected traffic volumes generated by non-residential entitlements currently in place;

- Provides needed access for citizens of Westlake to development within their Town as well as access to major traffic routes; and
- Provides needed relief from projected traffic congestion.

Due to property owner concerns (as specified above), roadway sections designated as “Special Consideration” merit serious consideration regarding design, along with public hearings that should be held prior to final approval. It is the intent that “Special Consideration” Roadways will only be brought forward in the event that such sections are needed to alleviate road congestion on the existing roadways of Westlake as non-residential entitlements are developed over time and other means of such alleviation are not feasible. The definition of “road congestion” necessitating consideration of improvements to a “Special Consideration” roadway is defined in the Policy Section of this Comprehensive Plan (more specifically Policy B.2).

### **A Type Of Grid**

The Thoroughfare connections proposed in this Thoroughfare Plan create a curvilinear grid like network (when combined with existing Davis, currently improved portions of Dove, existing Solana Boulevard, and existing Westlake Parkway).

### **Not Alignment-Specific**

By design, the streets identified in the Thoroughfare Framework Plan do not depict a specific alignment. Much of Westlake is currently undeveloped, and specific alignments will need to be determined in conjunction with development plans for individual sites. Therefore, the Thoroughfare Framework

depicts connections that are needed to create a system potentially capable of accommodating the trip volumes anticipated by the Plan (depending on final design and alignment).

There are five points of “Design Focus” and “Special Consideration” indicated on the Plan by a circle or oval numbered 1 through 5. More specifically, these points of focus and consideration are:

1. The intersection of Ottinger Road and the westerly extension of Capital Parkway: The extension of Ottinger Road to the north will be as indicated on the map with an alignment that goes west of the hill and connects with Capital Parkway, as shown.
2. The intersection of Capital Parkway and Pearson Lane: At a point in time when development occurs and the Capital Parkway and Ottinger Road thoroughfares are required, the T.I.A. will recommend the appropriate traffic handling requirements at this intersection.
3. The intersection of Ottinger Road and a westerly extension of Dove Road: Further study is required to determine optimum operational design.
4. The northerly extension of Pearson Lane from Dove Road to Capital Parkway: The intersection of the northerly extension of Pearson Lane and Dove Road will be made as an offset intersection at Dove Road, as shown on the Thoroughfare Plan. The design of the two intersections of Pearson Lane and Dove Road will be completed utilizing a design that produces the most efficient traffic movement, which may likely include the installation of roundabouts at these two intersections.
5. Dove Road from a point immediately east of Davis Boulevard to the east

town limits of Westlake (as shown on the Thoroughfare Plan) is shown on the Thoroughfare Plan as a Roadway of “Special Consideration” and continues to be shown (as it is shown in the Town’s 1992 Comprehensive Plan) with a 106 ft. right-of-way with median divided for four lanes of traffic (two lanes in each direction) or two vehicle lanes with bike lanes. A Roadway of “Special Consideration” means that the road segment has potential to be perceived as having an adverse effect on adjacent properties. Therefore, serious consideration regarding design, along with public hearings, should be held prior to final approval.

While the individual alignments are not specific, the roadway connections represented by the lines on the map are. This Plan should guide individual developments as they come online, serving as a framework for the identification of specific alignments and roadway connections.

## STREET TYPOLOGY

Streets identified in the Thoroughfare Framework Plan serve two primary functions: one, move people and goods, consistent with travel demand and purpose, and two, convey a sense of character and place, consistent with the adjacent community as identified in the Land Use Plan and Town Design Structure Plan. To that end, the Thoroughfare Plan identifies three different types of streets:

- **Regional Arterials:** Streets that serve regionally-oriented trips and the Regional Community as defined in the Land Use Plan. Regional Arterials are Westlake’s primary connection to regional roadways approaching

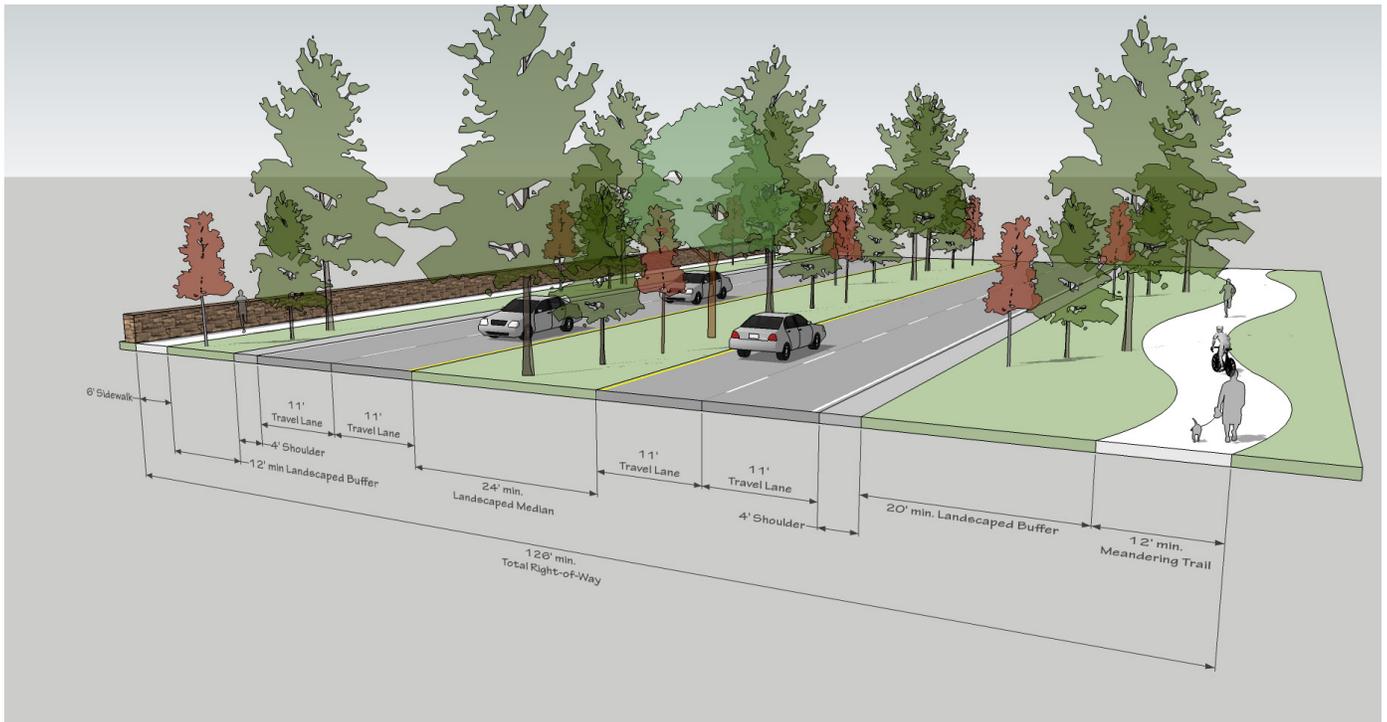


Figure 114: Regional Arterial Typical Section (Four Lane)

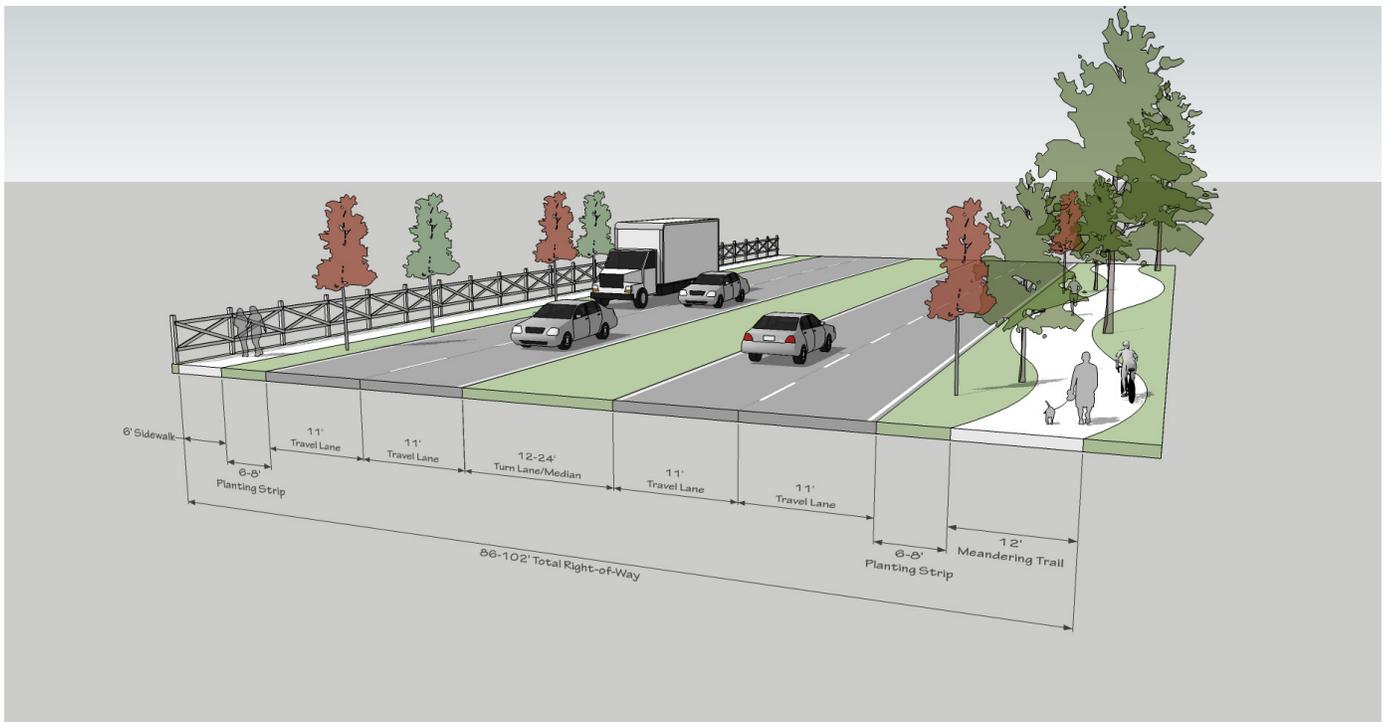


Figure 115: Town Arterial Typical Section (Four Lane)

and bordering Westlake and provide continuity with the Town's Street Network. While certain shopping, entertainment, and employment uses will front Highway 114 and/or Highway 170, millions of square feet of such use

will located deeper into the fabric of Westlake and be served by the Town System component. Therefore, a linkage between the Town System component and the external regional roads is needed. These links are known as the Regional Arterials.

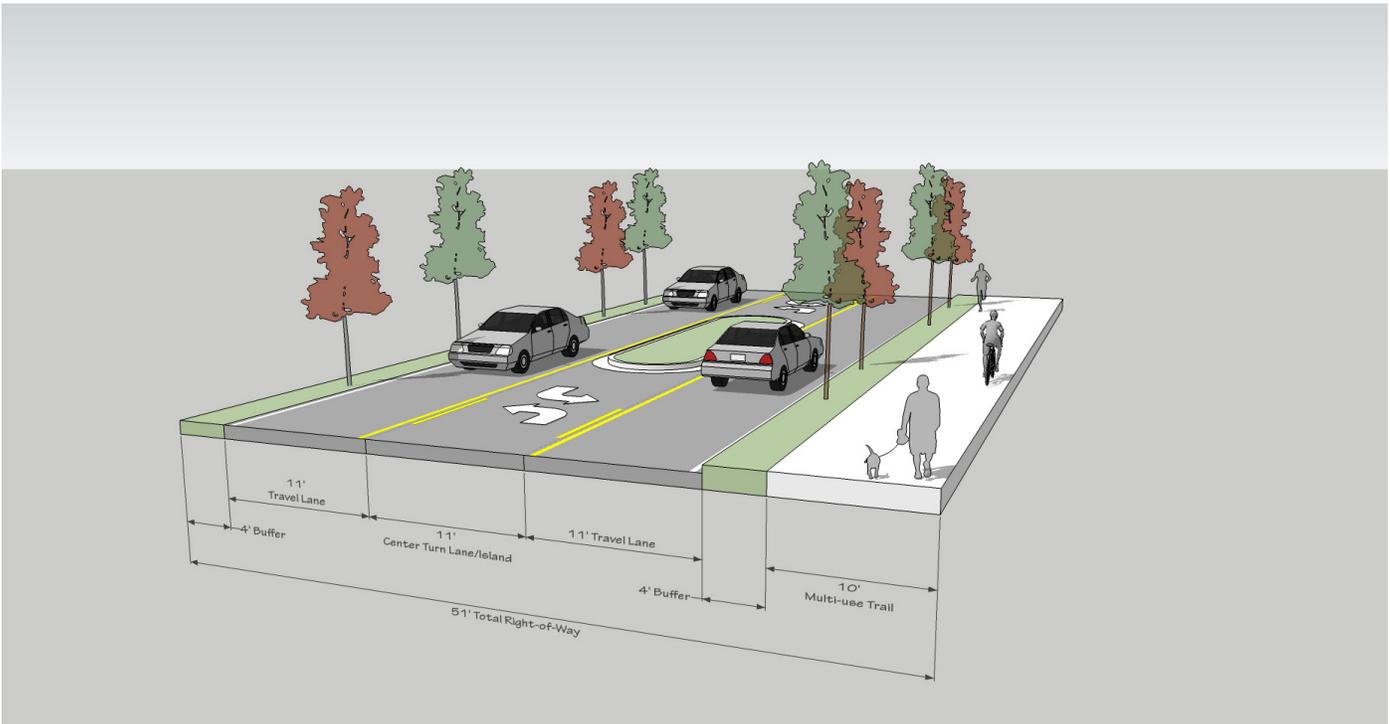


Figure 116: Town Arterial Typical Section (Three Lane)

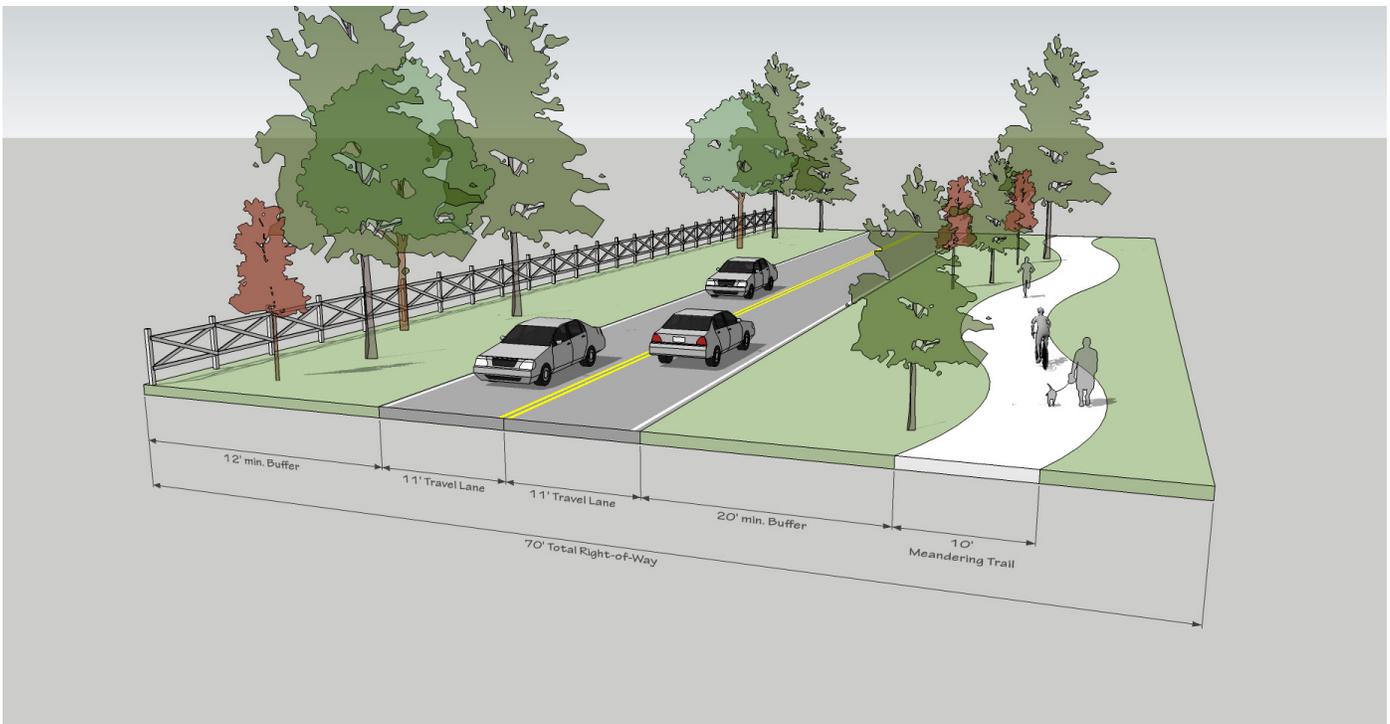


Figure 117: Pastoral Collector Typical Section (Road Buffer includes barrow ditches)

- Town Arterials:** Streets that serve destinations within in the Town and provide continuity with the Regional System. Town Arterials are located in places where locally originated and imported traffic comingle in the kind

of robust flow to and from desired local destinations that is typical of a vibrant township. It is an important aspect of “town” that the presence of place is expressed as a network of roadways serving destinations within

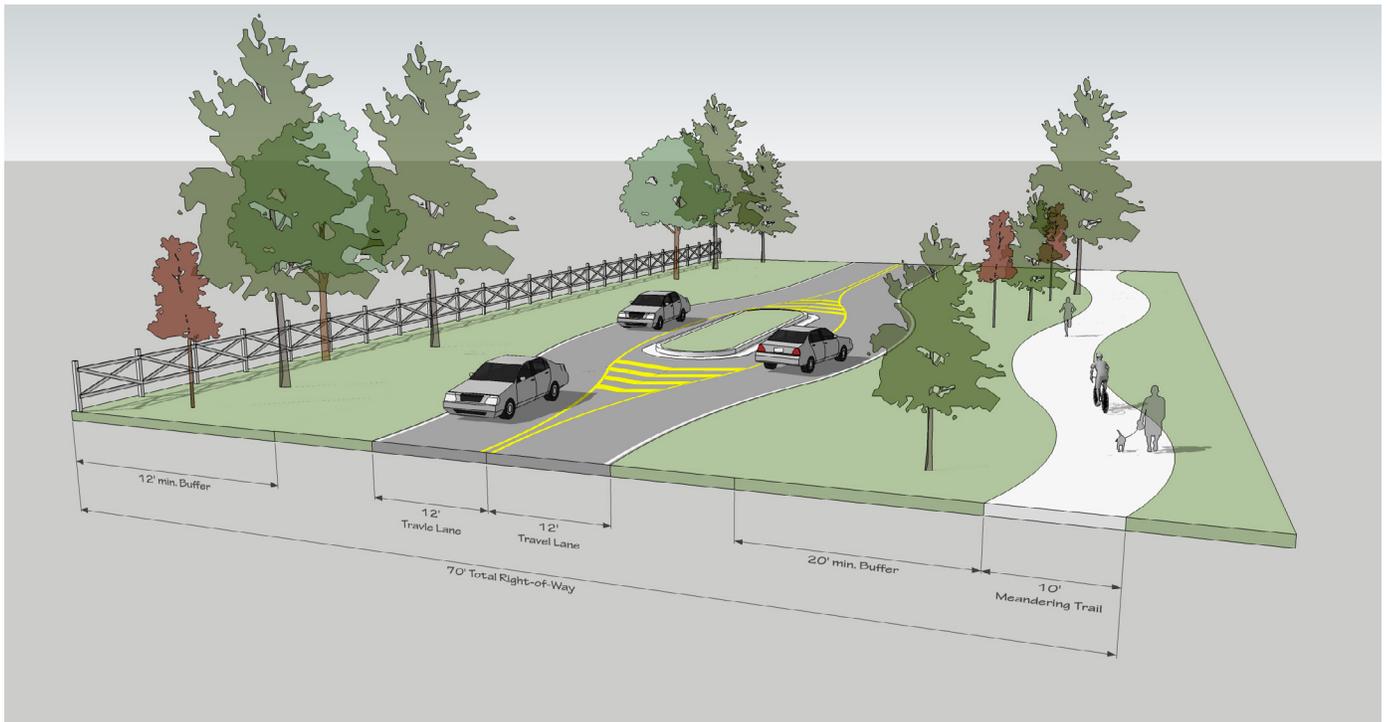


Figure 118: Pastoral Collector Typical Section (with Traffic Calming)

the town fabric. Therefore, one moves from Regional Arterial to Town Arterial as they come into the Town and seek the destination offerings of the Township. In many historic towns along hub and spoke systems, the regionally connected road enters and becomes part of the local network as one moves from a rural environment to a more urbanized environment. Similarly, the Regional connections give way to local movement patterns structured by the Town System element. In addition, Town residents moving from the quieter setting of neighborhood roadways (Pastoral Collectors) will encounter the Town System element before they transition to the Regional System element and make their commute; or they will stay within the Town to shop, etc.

- **Pastoral Collectors:** Streets gathering residential traffic as it moves to and from residential neighborhoods. The Pastoral Collectors and the

Regional Arterials are transitional levels of connectivity ascending and descending from the Town Arterial. This transition is what protects the Pastoral Collectors (residential streets) from commercial traffic encroachment and it is what keeps town-based movement from being channeled through Regional Roadways (conditions afflicting many corridor related townships like Allen, Texas). The Pastoral Collector expresses the essence of residential life in Westlake and is the place where Westlake's rural identity is most visible. With the Town System element to provide much of the connection function needed, the Pastoral Collectors can be just roadways that gather local residential traffic as it moves toward the larger town and/or region.

The Town Design Structure Plan provides more discussion on the visual character, streetscape, and landscaping of each street type described above. These street

### Connectivity Guidelines – Example

<b>Block size</b>	200 to 800 feet.
<b>Cul-de-sacs</b>	Limited to 10% of all street links.
<b>Intersection density</b>	Minimum 0.8 to 1.2 intersections per 10 acres.
<b>External connections</b>	Minimum of three sides.

Figure 119: Street Networks and Connectivity

sections serve to identify dimensional standards and lane widths.

## NETWORKS AND ACCESS

The Thoroughfare Framework Plan lays out the locations of major streets – arterials and collectors – and provides guidance on what those streets should look like. Beyond this foundational framework, however, there are other elements that should be taken into consideration.

### Networks and Connectivity

The proposed street network for Westlake places an emphasis on connectivity. Well-connected street networks result in more direct routes and shorter travel times, as opposed to a few large, multi-lane arterials, which create congested intersections and longer, more circuitous routes. Robust street networks also mean smaller streets with less traffic, which is more conducive for walking and cycling.

At a maximum, streets within fully developed areas should be spaced no

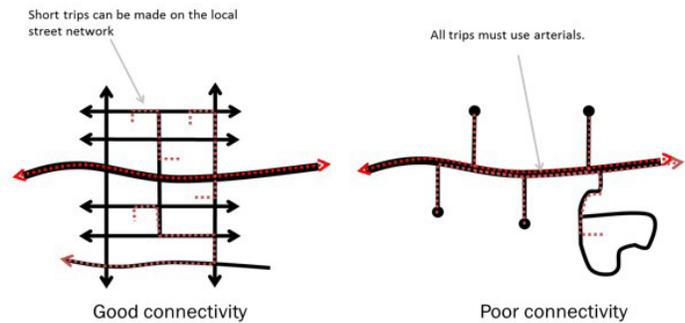


Figure 120: Connectivity Examples

more than one eighth of a mile apart. Arterials, which form the backbone of the transportation network and carry most of the regional traffic, should be spaced at approximately one to two miles. Collectors should be spaced at ¼ mile to one mile intervals. Local streets should fill in the rest of the network.

It is important to note that this network does not necessarily have to be provided by the public sector. This network could easily be built as part of private development, as long as it provides connectivity to the external network.

The Thoroughfare Framework Plan identifies how most arterials should connect. At a finer grain, network connectivity standards should be prescribed as part of the Town's land development regulations.

### Access Management

Having good street connectivity is important to a well-functioning transportation network. At the same time, street systems with too many access points can create problems. The Thoroughfare Framework Plan calls for a network of four lane arterials divided by landscaped medians. Median openings must be closely coordinated with adjacent businesses to achieve an optimal balance between safe and efficient vehicular movement and economic benefit.

Relationship Between Street Type and Access

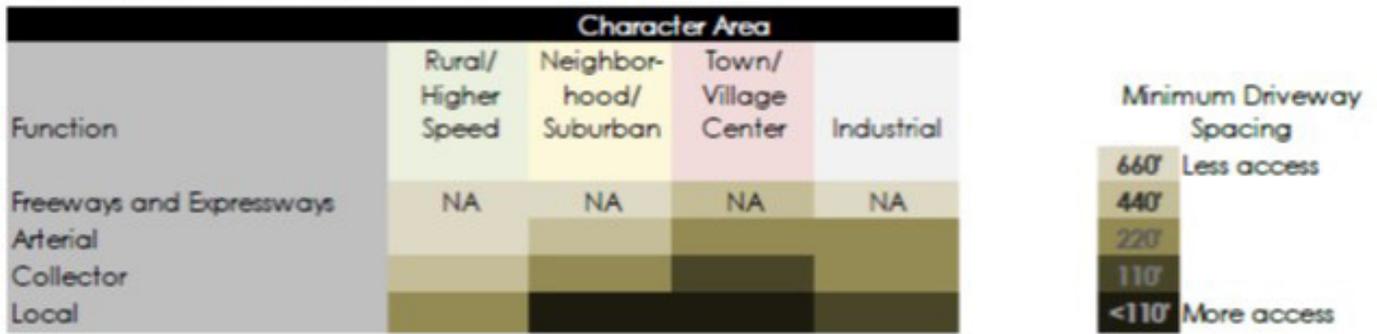


Figure 121: Street Type and Access

Access points include driveways, cross-streets, median openings, signalized intersections, and potential traffic circles. Each additional access point increases the potential for conflict, which degrades roadway capacity and increases the chances for collisions. Therefore, coordination of development zones defined by the Thoroughfare Plan should take place so that internal private streets are interconnected wherever possible.

More intense development, where emphasis is on adjacent land use activity, should have greater access than in other locations where vehicular mobility takes precedence. Freeways, by definition, should have very little access. The Regional Arterial Connectors and Town Arterial System should provide next level of access with coordination of private roadways within that arterial network providing even more access. Limiting access is less of a concern on local streets.

Access management standards can provide specific guidance for the placement of access points. For State roads, they should be consistent with the Texas Department of Transportation's (TxDOT) Access Management Manual.

## BICYCLES AND PEDESTRIANS

The proposed street framework is designed for all users, including bicycles and pedestrians in addition to motor vehicles. This could mean a mix of on-street and off-street facilities, depending on the context.

### On-street Facilities

On-street facilities are essentially sidewalks and street side trails. Sidewalks are appropriate for lower-speed environments and are generally wider in locations where the emphasis on people and places is the greatest. In locations where vehicles move at higher speeds and/or a greater volumes, it is desirable to have some degree of separation between the sidewalk and the street, such as on-street parking or street trees and a planting strip.

On-street facilities for bicycles include bicycle lanes and wide shoulders. Bicycle lanes are typically found in more compact urban and suburban locations while wide shoulders are in rural locations. On low speed, low volume streets, cyclists can ride in mixed traffic with motor vehicles. Less experienced users (children) may ride on sidewalks. On-street facilities will be found on local neighborhood streets within Westlake as the capacity of the

Thoroughfare network must be preserved to accommodate anticipated traffic volumes. Therefore, bike and pedestrian facilities along Regional Arterials and Town Arterials will be trails and/or sidewalks within the street Right-of-Way (as presented in the Open Space, Parks and Trails Plans).

### **Off-street Facilities**

Off-street facilities accommodate a range of users – bicycles and pedestrians – simultaneously. Off-street facilities can run parallel to a street, but must include a minimum amount of separation, including a grass buffer and trees and other landscaping elements.

Given the nature of Westlake's higher speed, higher volume arterial system, The Thoroughfare Framework Plan calls for a series of parallel off-road facilities that also form the Town Trail System. This trail system is intended to provide connectivity to the Veloweb – a 1,700 mile network of existing and planned trails spanning the Metroplex – meaning that Westlake can serve as a destination for regional bicycle and pedestrian travel.

Additionally, Westlake seeks to distinguish itself as a pedestrian friendly Town. Part of the “slow moving” lifestyle that residents cherish comes from the fact that all movement is not required to confront the congestion of the 114 corridor. To the extent that there can be a non-street option that is viable, is the extent to which Westlake can offer relief from the congestion that neighboring communities are experiencing. This Plan aspires to provide a trail network as robust as the arterial system.

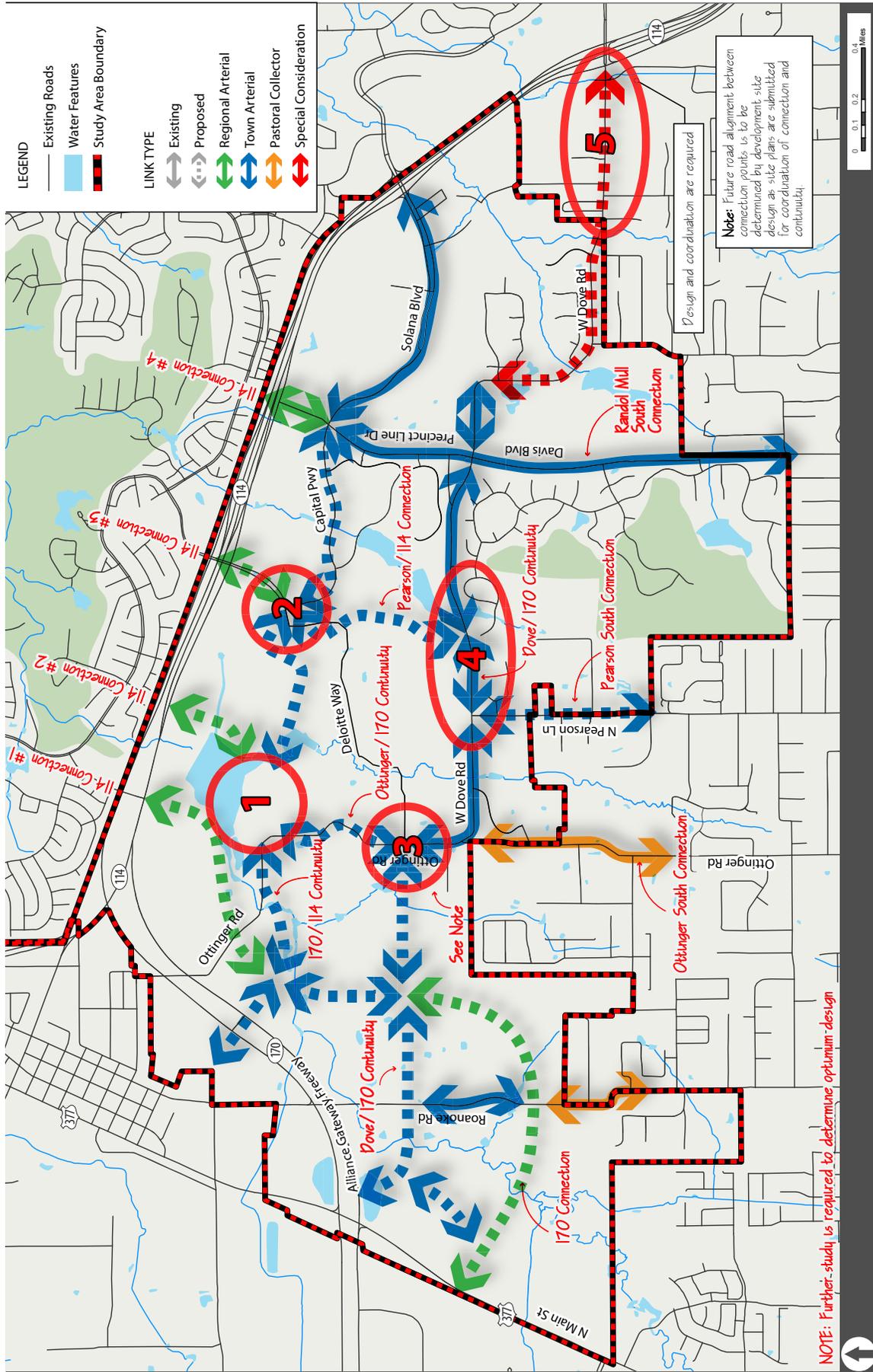
## **TRANSIT**

As Westlake grows into a center for employment and commerce, it should explore ways to add transit to the mix of transportation options. Specifically, transit should be given consideration as an option for the thousands of travelers that will commute to Westlake on a daily basis. This does not necessarily have to be a service provided by the Town, but rather a function of coordination with one of the regional transit providers.

Additionally, the high number of planned employers and retail activities make a locally-oriented transit service a distinct possibility. Such a service would shuttle riders between their place of work and dining, shopping and service destinations within the Town. Such a system would be particularly supportive of a regional transit system by providing mobility options for commuters during the course of the work day.

Both within the Metroplex and elsewhere across the nation, an increasing number of regions are looking to transit solutions as major road building initiatives reach their conclusions and communities become denser. Regional transit service has come to Dallas-Fort Worth International Airport and the SH 114 corridor is a logical extension of that corridor. Thus, regional transit service coming to Westlake is a distinct possibility over the long term. The Town should give careful consideration to how regional transit service might optimally serve Westlake, including the character and scale of development around potential station areas and how other places throughout the Town may connect.

# THE THOROUGHFARE PLAN





## **PART THREE: THE PLAN ELEMENTS**

### **SECTION THREE: THE PARKS, OPEN SPACE, AND TRAIL PLAN**

#### **INTRODUCTION**

Open space and natural fabric preservation have consistently ranked as top planning priorities by citizen participants in the Public Planning Workshops. However, the Town of Westlake has only one publically owned park at this time, called Glenwyck Farm Park. It is located along the waterway flowing along the south edge of the Glenwyck Farm Community. Most of the open space development in Westlake has been privately led with communities such as Vaquero Club Estates providing generous open space areas within the fabric of that development. These private open spaces have preserved important creekways of the Town and, to that extent, have proven essential in the advancement of natural asset preservation. However, depending upon private initiatives as Westlake builds out does not assure that the Town will still have important natural features/ systems or sufficient recreational opportunities for its residents in the future.

Key Citizen Priority Statements that guide this Open Space Plan include the following:

1. Maintain views of a largely undeveloped foreground as Westlake grows.
2. Maintain views of agricultural land and agricultural activities as Westlake grows.
3. Maintain distant vistas from higher elevations.
4. Maintain views of natural topography.
5. Maintain view sheds that contain essential elements of Westlake's pastoral character.
6. Promote a rural character in present open spaces and future open space expansion.
7. Promote a continued use of natural forms in, and non-structured means of, storm water management and detention facility design.
8. Promote the continued creation of environmental, cultural, educational, and visual assets for Westlake in all private and public development.
9. Preserve the rural and agricultural features of cultural significance.
10. Preserve natural corridors.
11. Preserve sense of openness in the continuity of a ground plane that is not interrupted by opaque fences or walls.
12. Preserve the natural land profiles and landmark land forms as well as promote greater open space as Westlake develops through regulation of building to land area relationships.
13. Encourage less development coverage of land and promote the use of land for enhanced retention and other landscape amenities.
14. Make pedestrian movement from neighborhoods to desired destinations within Westlake more conveniently accessible.
15. Create a workable system of walking and biking trails that links points of trip origin with desired destinations and integrates with regional trail systems.
16. Employ existing and future lakes/water bodies and other natural in the overall Westlake trail system.
17. Encourage the connection of individually constructed trail facilities as they are built and assure connection to desired destinations within Westlake.
18. Encourage the gathering of required detention into major environmental amenities for the Town.
19. Maximize the potential of present and future lakes and water courses to enhance the value of residential and non-residential development.
20. Centralize detention as much as possible in current lakes/ ponds and other "in-line" water catchment areas in order to encourage larger, more useful, and more recreational water bodies.
21. Anticipate the effects of upstream development in Keller and Southlake on the configuration of future flood areas and water flow management systems (including creekways, lakes, and ponds) and secure area for floodway/ water body expansions as they are needed and use such increases to further enhance the open space and recreational assets of Westlake.
22. Promote water conservation and reduce water usage.
23. Preserve existing creekways and creek areas associated with them through creation of preserves/parks and/ or development standards that promote responsive, low-impact development practices.
24. Initiate natural and system supported measures to reclaim and reuse water where appropriate.
25. Preserve significant native trees and tree communities, especially within riparian areas.
26. Use existing and future lakes as facilities for water conservation and waterways serving them as places of natural conservancy.
27. Provide park and recreation

opportunities that serve the needs of Westlake's present and future population (such as dog parks, playgrounds, and public golf course).

28. Provide recreational opportunities that are more undeveloped passive open spaces that serve less intense and contemplative activities (such as arboretum or natural preserve).

Particular comments in this list directly speak to parks and open space while others speak to trails. Note that 6, 10, 12, 23, 26, 27, and 28 specifically mention parks and open space and call for the park and open space system of Westlake to be focused on preservation of natural features and rural heritage.

Natural feature presentation in Westlake is not only important to the residents of the Town but ecologically important to the general ecological context. Figure 122 reveals that the corporate boundaries of Westlake contain a substantial portion of the ecotone lying between lowlands extending north and west from Westlake (through Roanoke and Alliance) and uplands extending generally south (into Keller and Southlake). Having these two natural settings come together in Westlake makes Westlake unique. Wikipedia defines an ecotone as follows:

“An **ecotone** is a transition area between two biomes. It is where two communities meet and integrate. It may be narrow or wide, and it may be local (the zone between a field and forest) or regional (the transition between forest and grassland ecosystems). An ecotone may appear on the ground as a gradual blending of the two communities across a broad area, or it may manifest itself as a sharp boundary line.”

Much of what the citizens of Westlake have identified as particular views and visual qualities that speak to the core identity of Westlake include the dramatic landscape of this ecotone region. In the relatively crisp change from hilly (uplands) to undulating flatness (pasture) one finds greater complexity of vegetative material and landmark landforms (shaped by erosion), which collectively occupy the vistas one enjoys and which are so cherished by Westlake residents. Therefore, landscape preservation in Westlake is an important Town objective and an important ecological contribution to the collective landscape of Westlake's neighboring townships.

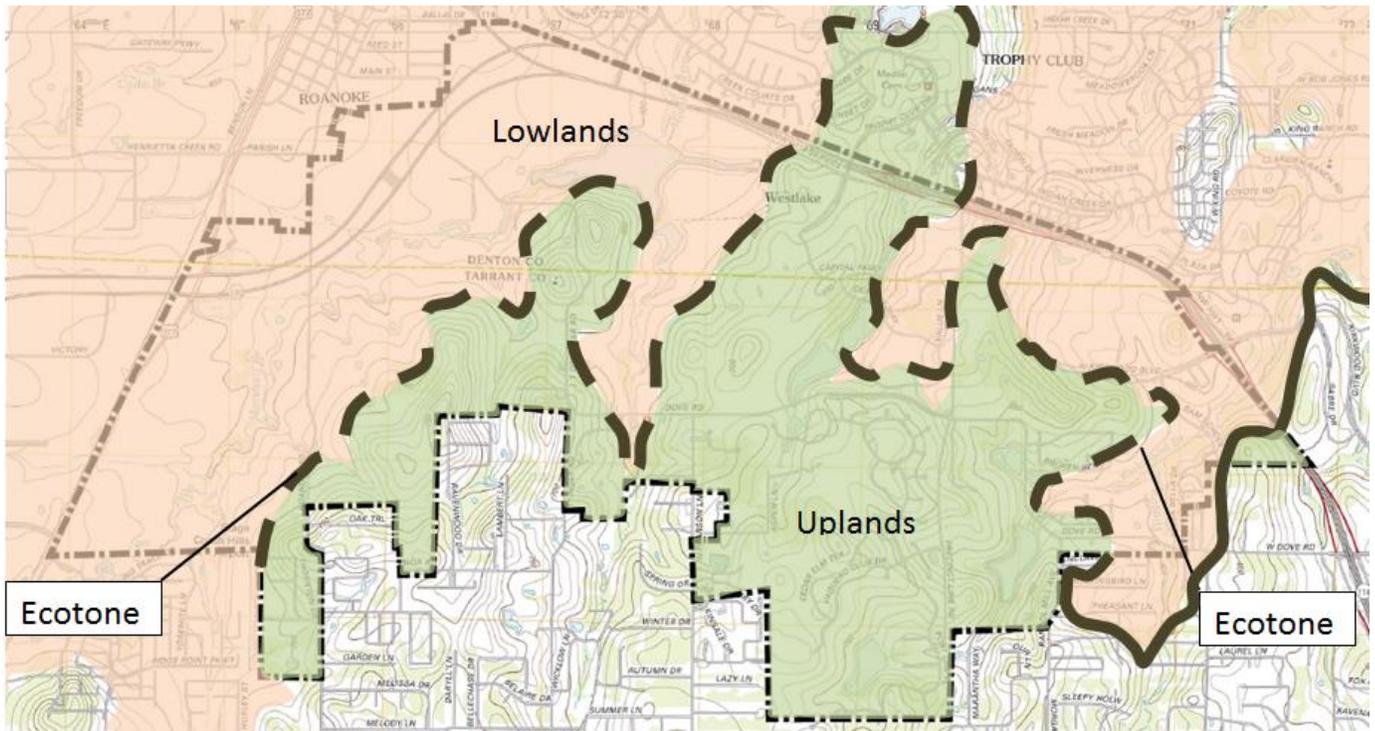


Figure 122: Ecotones of Westlake

In light of the guidance given by citizen participants in the Planning Workshops the ecological importance of Westlake's landscape to the region, this Parks, Open Space and Trails Plan will be primarily concerned with passive open space areas.

Other comments put forward by citizen participants in the Public Planning Workshops address trails directly and include numbers 14, 15, 16, and 17. Here, the theme directive is to have a trail system that is connected, safe, and interfaces with the natural features of the Town. This latter point suggests that the citizens of Westlake not only want an open space system that preserves the natural fabric

but that such preservation is visually and materially accessible to them.

The ecological importance of Westlake and the natural preservation sensitivities of its citizens, largely driven by the undeniable presence of this ecological tapestry, is the template upon which the following Parks, Open Space and Trails Plan is built.

Figure 123 illustrates how much of the ecotone is contained within the Open Space District as depicted on the Land Use Plan. Those portions not captured within the Open Space Community are discussed individually. This depiction is important to the overall open space strategy.

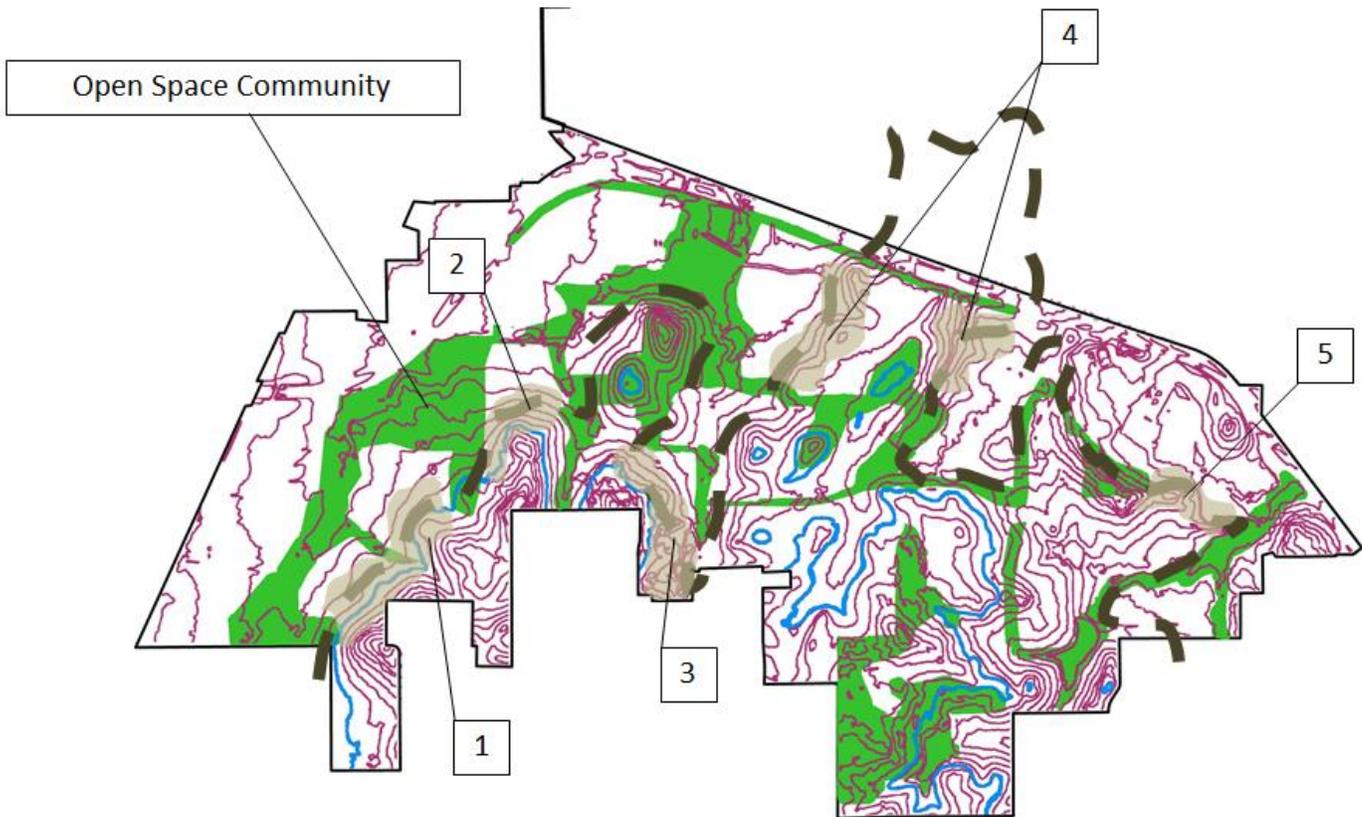


Figure 123: Ecotone and Open Space District

Portions of the Ecotone not in the Open Space District include:

1. **Area in the Commercial Community reaching from the View Shed to the Vista Terminal:** This dramatic portion of the ecotone is located within an area identified as a district suitable for the exportation of commercial square footage (Land Use Plan element). Therefore, incentivization of preservation by private development is possible as more campus uses are encouraged.
2. **Area in the Town Core Community:** This part of the ecotone falls within the View Shade area and is, therefore, not part of the visible town (from a vista and view perspective). Therefore, strict preservation is less critical to the town identity. Preservation in this location may require a public/private joint effort.
3. **Area in the Pastoral Community portion located in area zones for five acre lots:** The low FAR established by current zoning use of the land in this location has already accomplished significant preservation.
4. **Area in the Commercial Community View Corridor:** The Commercial Community within a View Corridor is identified as an area suitable for the exportation of commercial square footage. Therefore, incentivization of preservation by private development is possible as lower building height and more open space is desired in this location.
5. **Area on the edge of current residential development:** Current residential development (such as Glenwyck Farm) will necessitate a residential buffer between residential and non-residential use. Therefore, a mechanism for preservation is already in place.

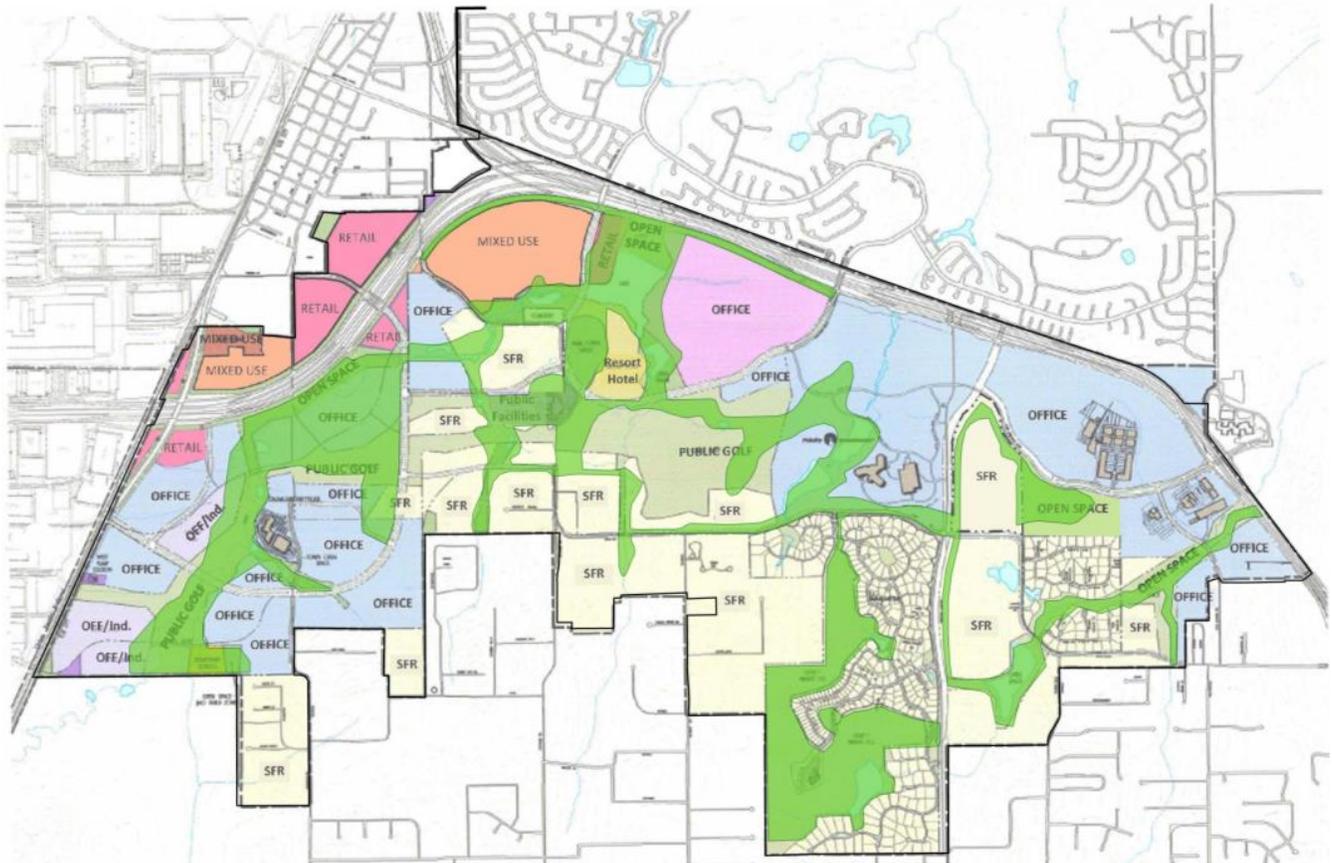


Figure 124: Open Space District over 2004 Land Use Plan

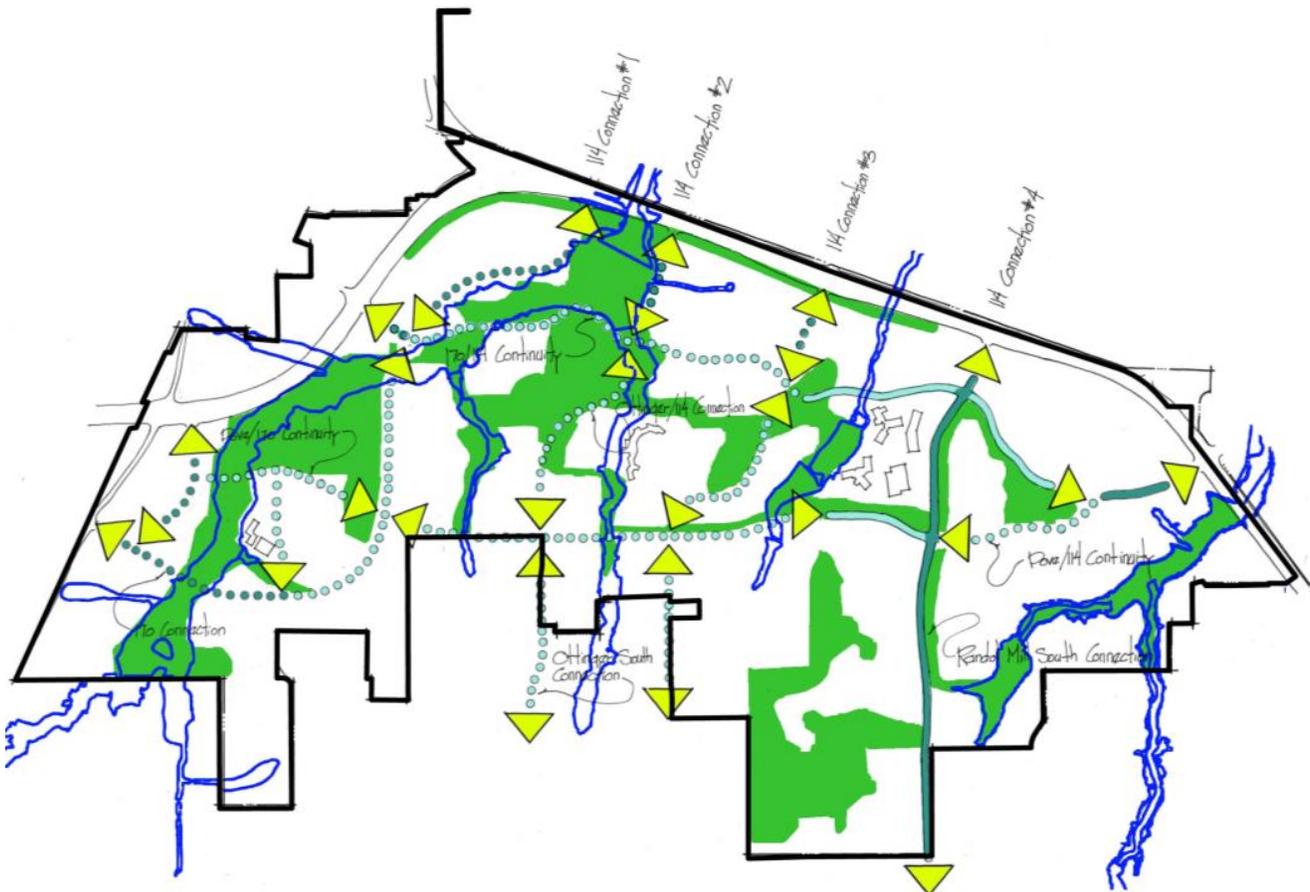


Figure 125: Open Space District over Floodways

In light of the above analysis, the primary objective of the Open Space Plan is to accomplish preservation of the most vulnerable natural features (including preservation of the ecotone, creek-ways, and landmark landforms) through various means of incentive, public/ private joint efforts, and acquisitions that capture the Open Space District as defined and also seeks to capture portions of the ecotone lying outside that District as development proceeds. Figures 124 and 125 both show the Open Space District of the Open Space Plan. Figure 124 shows the recommended Open Space District superimposed over the open space delineated in the 2004 Land Use Plan. Figure 125 shows the recommended Open Space District with floodways.

### **Appropriate Park, Open Space and Trail Types for Westlake:**

At build-out, Westlake will be simultaneously a small town (with a residential population of approximately 7,500 people) and a large urban area with a day-time population of over 90,000 people (including retail shoppers, office and other employees, and hotel occupants). Therefore, the variety of needed park/ open space types (both public and private) spans a range from urban condition to natural condition. When one considers the convergence of population types and the public preferences as expressed in the Public Planning Workshops the following park, open space and trail types are most likely required to serve the future Town:

- **Natural Preserve/Landmark Landforms:** Areas of relatively undisturbed landscape (sometimes a restored landscape) for the purpose of maintaining the presence and health of natural systems (such as water flow), tree and other vegetative communities, and ecotone diversity. Meant more to

be viewed than used, limited public use promotes environmental understanding and contemplative connection with the native landscape of Westlake without over burdening the natural mosaic with active use. These areas should include landmark landforms distinctive of Westlake and termini of the vistas that residents enjoy.

- **Rural/ Ranch Landscapes:** Areas of culturally significant and/ or historic agricultural activities that are part of the identity of Westlake. These can be active or inactive but are meant to illustrate the presence of, and function of, local agriculture in the indigenous landscape and its significance in the formation of the Town.
- **Connection Open Space:** Open space linkages between other open space areas that preserve the natural mosaic create a harmonious merger between the pastoral and commercial communities and provide visual continuity of the characteristic vista.
- **Low Impact/Nature Trails:** Interpretative pathways are means of public access into natural preserves and other open areas where interpretation is offered. Nature Trails are low impact, in terms of the disturbance they impose upon natural landscapes, and provide an opportunity for a civilized encounter with the natural condition. If areas suitable for nature trails are not public, the Town should pursue means of attaining public access that are agreeable between the private property owner and the Town.
- **Recreational Open Space:** Open areas used for outdoor recreational or decorative purposes. Recreational Open Spaces are developed open space amenities typically part of a development or large project.
- **Town Trails:** Primary pedestrian connection routes between neighborhood trail heads (as described

in the Town Design Structure Plan to follow) and bike/ pedestrian pathways to points of destination such as shopping, working, and/ or schools. Town Trails are meant to reduce locally generated vehicular trips and make the Town more pedestrian friendly overall.

- **Neighborhood Trails:** Collection networks within neighborhoods that gather household populations onto the Town Trail system. Neighborhood Trails are typically privately provided as part of the residential development. Neighborhood Trails connect households with the trail heads that are portals to the Town Trail system.
- **Community Park:** Central community park areas that provide opportunities for shared community activities. These can include open fields for impromptu sport activities as well as park bench areas, dog-park facilities, pavilions, picnic areas, etc.
- **School Park:** Group recreational facilities for organized activities such as team sports. Recreational spaces developed by, or in conjunction with, schools allow dual use and development of a better equipped facility. In such cases the debt funding of both School and Town can be employed to develop these joint use parks.
- **Neighborhood Park:** Small recreation facilities serving the recreational needs of a small population, typically children and their parents. Therefore, these facilities can contain playgrounds and multipurpose space for unstructured child/ parent activities. Many times, these facilities are privately developed as part of residential development. However, continued market dominance of older buyers may leave the Town with a playground deficit.
- **Regional Trails:** Pass-through pathways for regional traffic that connect with the Town Trail System and make Westlake a

destination within the regional network.

- **Mini/ Urban Park:** Vest pocket open spaces in urbanized areas for the use of day-time populations. These will typically be provided by the private developer and are meant to serve the physical/ mental health needs of the workforce population. Meeting such need includes facilities for walking, socializing, getting outdoors, and otherwise breaking from the work routine. These are generally used to inject some level of natural setting into the urban environment. These should be located at ¼ to ½ mile apart across the more urbanized urban areas of the Land Use Plan.
- **Town Common Public Gathering Space:** Ceremonial gathering space for the purpose of collective celebration of seasonal, festive, corporate, fraternal, and other social interactive events. Public gathering spaces are fundamental for any center to meet the demands of being a central location in terms of the town life.

Most of these Open Space Types lie within an Open Space Envelope, portrayed on the Parks, Open Space and Trails Plan that stretches from the western most edges of Westlake to the eastern areas of Westlake, containing approximately 1,200 acres of land, and primarily includes land already identified as open/ amenity land in current property owner master plan documents (such as the 2014 CTR Master Plan) and the Town's 2004 Land Use Plan as well as land currently set aside as open space in various projects (such as Granada) and current Planned Development Ordinances. However, certain open space segments are not already set aside by one of the means listed above but are critically important to fulfilling the public goals and priorities driving the Parks, Open Space and Trails Plan. More specifically, these areas include the two critical hilltops, key

transitions to existing residential areas, and east/ west connections that consolidate the existing open spaces into a continuous Open Space Envelope. These open space areas are located on property belonging to PD 2 and PD 3 and labeled as “Zone of Sensitivity” in the Parks and Open Space Plan.

As generally stated above, a **Zone of Sensitivity** is a portion of the Open Space Envelope not currently shown or set aside as open space (within an approved Planned Development Ordinance, the 2004 Town Land Use Plan, an existing/ pending project, project/ land owner Master Plan) and for which entitlement has already been granted but also has one of the following associations:

- Contains a Landmark Landform.
- Abuts a residentially developed area.
- Provides continuity within the open space system.

Any proposed development within an Area of Sensitivity should be responsive to the above listed associations where they occur within and adjacent to such proposed development and every reasonable effort should be made in the development planning and design to accommodate such associations/ conditions.

Zones of Sensitivity will include at least three of the above listed Open Space Types:

- Natural Preserves/ Landmark Landforms
- Connection Open Space
- Low Impact Trails (if proposed)

Therefore, development in this area should consider these associations during the development planning process. The Parks, Open Space and Trail Plan build upon this typology of park, open space and trail types (including the Zone of Sensitivity) to create a coherent and connected open

space system. Once the types of open spaces and associated park/ facility types are identified, it is important to define the level of service that the Town should maintain.

#### **Level of Service:**

The starting point for any Parks and Open Space Plan is to determine facility needs for the future population. The Assessment portion of this Comprehensive Plan Update (Part One) establishes that the population holding capacity for Westlake is approximately 7,500 people. This puts Westlake among the smaller towns within the Metroplex and makes application of typical NRPA (National Recreation and Parks Association) standards somewhat difficult because such application would amount to park areas undersized for their needed use. None the less, exploration of, and interpretation of, these standards is important to consider.

By 1940, one quarter of all U.S. cities having park facilities met the prevailing standard of 1 acre per 100 population. However, since 1940, suburban expansion (typically without provision of park facilities) has added considerable population demand to the minimal park system brought forward from this earlier era. According to the Planning Advisory Service Information Report #194: “[by] 1956 the total area of City and County parks was about three-quarter million acres; an adequate area by the [1946] standard would have been two million acres”.

Since the emergence of this condition, there has been much debate and disagreement regarding the appropriate standard for park facilities based on population. There are many factors that influence determination of the appropriate recreational standard. Such factors include:

**1. Cultural Background:** The whole notion of what constitutes recreation can vary according to cultural notions of leisure and child rearing practices. Where a community has a diverse culture the use of a simple standard becomes significantly more complicated. Westlake embodies a general cultural uniformity and that culture is predominantly one that holds a traditional view of recreational requirements, the view typically reflected by NRPA standards.

**2. Socio-economic status:** The population analysis provided in Part One: Assessments of this Comprehensive Plan Update identifies the dominance of certain socio-economic types in present day and future Westlake as follows:

**a. “Suburban Splendor”**

- i. Predominantly Caucasian, older, and average Household Income at \$115,369.00.
- ii. Well educated, business clubs, investments, home equity lines of credit, financial planners, life insurance.

**b. “Boomburbs”**

- i. Similar to “Suburban Splendor”, little younger, average Household Income at \$104, 395.
- ii. Family vacations are a priority, typically play tennis, golf, and ski, spend more than \$250 per year on sports equipment.

This relative homogeneity in the socio-economic character of present day and future Westlake suggests that significant attention should be paid to the needs of an older, more prosperous population.

**3. Availability of other provided facilities:** The closeness of neighboring cities such as Keller and Southlake with their well-developed recreational offerings (such as Bicentennial Park and Keller Sports Complex) provide opportunities

for Westlake's small population that are easily accessible. In addition, higher price point residential developments typically offer private recreational facilities for the enjoyment of future residents. It is anticipated that many of the developments in Westlake do (and will) offer significant recreational facilities for the enjoyment of their residents.

**4. Lot capacity as recreational base:**

Large lot development means that most home lots offer some meaningful level of recreational development. Private lot facilities can include pool, basketball court (half court), tennis, and playground equipment. It is anticipated that many of the lots in Westlake do (and will) contain many of these facilities.

Figure 126 presents various park recreational offerings and the NRPA standards typically used to guide their allocation within a city as well as the Planning Team’s augmentation of that standard based on the above stated factors that influence use of the standard.

The minimum recommended area for the above specified park types (1,900 ac) is approximately the size of the Open Space District as shown on the Land Use Plan and in this Plan Element. Some of that acreage is used by Westlake Academy and is, therefore, including an additional 28 acres for dual recreational development. The active portion of this acreage is less than the Open Space District indicated on the recommended Land Use Plan, meaning that the significantly greater portion of the Open Space District is passive (preservation of rural, natural, landscapes and/ or landmark landforms).

Park Type	Suggested Park Size at NRPA Standards	NRPA Ratio Total Acres/ 1000 Population	NRPA Suggested Total Acres based on Population	Recommended Westlake Acres/ 1000 population	Westlake Total Acres at Build-put based on Amended Standard
Playgrounds/ Mini Parks	Less than 1 ac.	0.5	3.5 ac = 4 parks	0.5	2 public parks supplemented by private
Neighborhood Parks	15+ ac.	2	14 ac = 1 facility	2	14 ac = 1 facility
Community Parks	25+ ac.	8	56 ac = 2 facilities	5 (due to potential for dual school facility)	35 ac. = 1 large facility
Total Local Close-to-Home Park System (hybrid park space)		10.5	73.5 ac	14	105 ac for hybrid recreational space
Regional Parks (Natural Preserves, passive areas, and rural areas due to population characteristics).	Greater than 200 ac.	10	70 ac = less than one facility	232 due to amount of natural system/ view fabric to be preserved and need for connectivity.	1,740 ac min but whatever is required for view, historic, and natural system preservation

Figure 126: National Recreation and Park Association (NRPA) Standards

The bulk of parks and open space ultimately set aside for passive use purposes does not have to be in public ownership. However, the land areas not in public ownership should be publicly accessible where possible and committed for conservation use by easement or other form of use restriction that runs with the land. Properly designed golf courses could be an appropriate use of the Recreational Open Space area.

When considering the provision of specific recreational facilities/features, the NRPA standards are helpful but require interpretation due to the population characteristics of Westlake's future population. The following Figure 127 illustrates the NRPA recommendations and adjustment to those recommendations based on community input at the Public Planning Workshops as well as consideration of population characteristics.

According to Figure 127, Westlake can exceed the NRPA standard with facilities at Westlake Academy, privately provided facilities and the open space acreages identified above and in the Land Use Plan. Considering facilities not available (and potentially available) at Westlake Academy, the Town needs to provide:

- Playgrounds: 1
- Basketball: 1
- Tennis: 4
- Baseball: 1
- Volleyball: 2

All of these facilities can be provided in the recommended 35 ac Community Park.

Facility Type	NRPA Recommended Facilities/ Population	NRPA Recommended Facilities for Build-out Population	Westlake Recommended Facilities/ Population	Westlake Recommended Facilities for Build-out Population
Playgrounds	1/1,000	7	1/2,000 due to lot size and availability of yard play structures	3.5 = 4
Basketball	1/5,000	1.4	1/ 2400 due to tapestry dominance of “Boomburb” Tapestry Group	2.9 = 3
Tennis	1/2,000	3.5	1/1,500 due to tapestry dominance of “Boomburb” Tapestry group	4.6 = 5
Football	1/20,000	0	1/7,000 due to availability of such facility at Westlake Academy	1
Baseball/ Softball	1/20,000	1.4	1/3,500 due to tapestry dominance of “Boomburb” Tapestry Group	2
Soccer	1/20,000*	0	1/ 7,000	1
Swimming Pool	1/10,000	0	Privately provided	
Volleyball	1/5,000	1.4	1/1,500 due to tapestry dominance of “Boomburb” Tapestry Group	2.9 = 3
Indoor Running Track	N/A	0	Running Option provided at school and along trail system	0
Ice Rink	1/100,000**	0	Located outside Town in close proximity	0
Trails	See Trails		See Trails	
Multi-Recreation Court	1/10,000	0	1/ 7,000 due to population capacity being close to national standard.	
*Based on pool size which accommodates 3 to 5 percent of population				
**Ratio of indoor rink, outdoor rink depends on outdoor climate				

Figure 127: NRPA Standards Revised for Westlake Needs

Preservation of Open Space/ Landscape Heritage

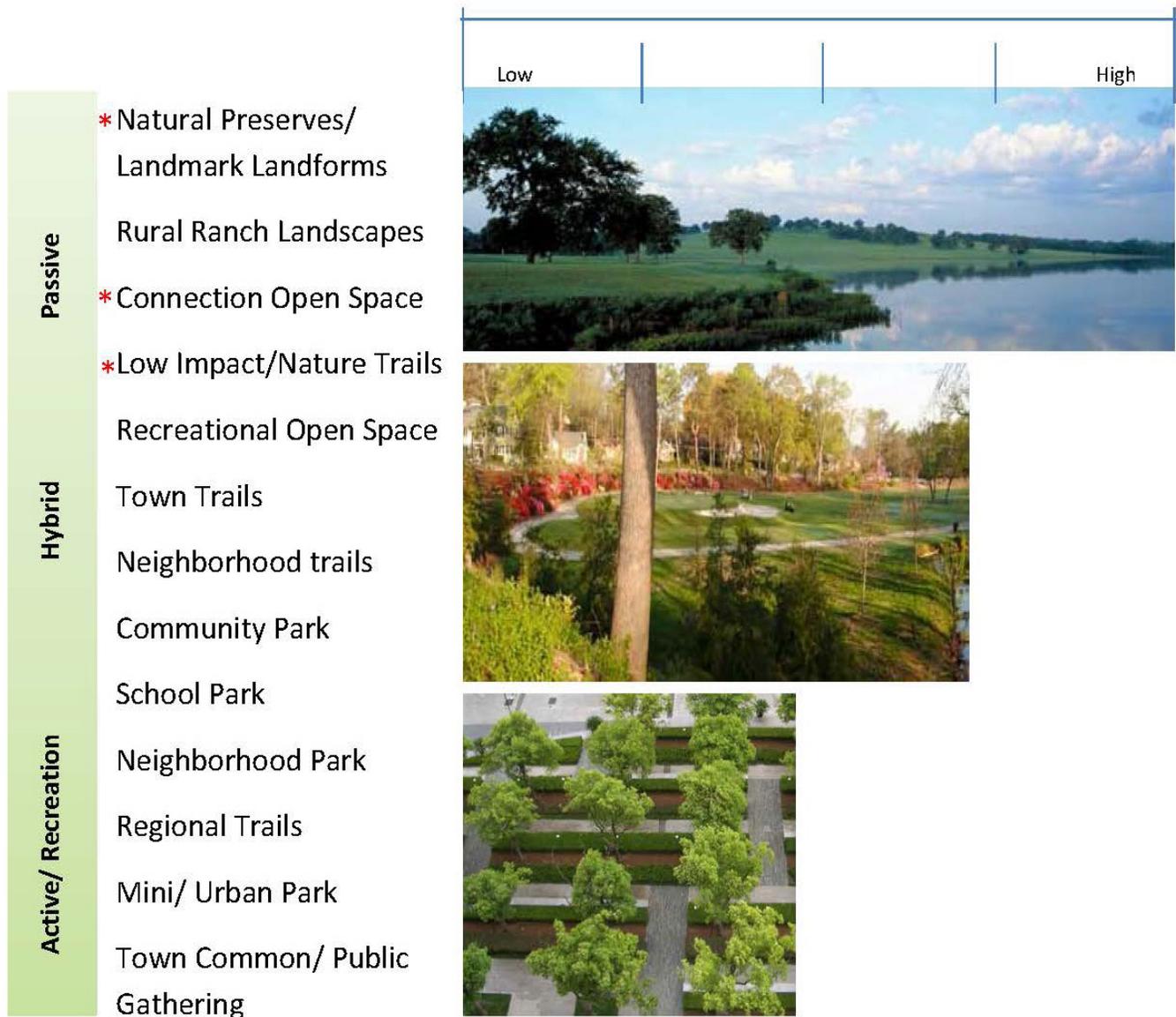


Figure 128: Preservation of Open Space and Landscape Heritage Transect

\* These areas also fall within the Area of Sensitivity as shown on the Parks and Open Space Plan

**Open Space Taxonomy:**

Figure 128 illustrates the relationship of park types (discussed earlier) and arrays them according to their suitability to effect the levels of preservation desired by residents of Westlake. The park, open space and trail types discussed earlier are arrayed along the vertical axis of the transect with park and trail types most useful for preservation at the top of the list. More specifically, the park and trail types are as follows:

- **Active/ Recreation:** The more intensively used spaces and trails are grouped in this category and include School Parks, Neighborhood Parks, Regional Trails, Mini/ Urban Parks, and Town Common/ Public Gathering Spaces.
- **Hybrid:** These parks and trails have a limited set of recreational activities that are conducted in a composed landscape environment (such as high traffic grass and shade trees with pick

up team play and family activities). Hybrid parks and trails include Low Impact/Nature Trails, Recreational Open Space, Town Trails, Neighborhood Trails, and Community Parks.

- **Preservation:** Conservation/ Preservation areas have controlled public use intended to lessen activity impact on natural setting. Preservation type parks include Natural Preserves/ Landmark Landforms, Rural Ranch Landscapes, Connection Open Spaces, and Low Impact/ Nature Trails. Some recommended Preservation Park areas fall within the Area of Sensitivity as shown on the Parks and Open Space Plan.

Figure 128 illustrates how the park typology presented accomplishes the preservation objectives stated earlier. Further, the transect illustrates that parks in the Preservation category accomplish the greatest preservation of open space and landscape heritage; the Active/ Recreation parks and trails accomplish the least. Hybrid parks and trails accomplish some preservation of open space and landscape heritage. As stated above, landscape preservation is the primary objective of citizen participants in the Public Planning Workshops. The space allocations presented in the Level of Service section of this Plan places the greatest acreage in the preservation category, thereby effecting the stated public objectives while also providing other sufficient parks and trails space to meet the population standards of NRPA as modified by the Planning Team.

Through this transect process, the Parks, Open Space and Trails Plan is rooted in a system of Recreation, Preservation, and Hybrid spaces.

## Allocation of Open Space to Land Use Districts and Parks, Open Space and Trails Plan

Having established the Parks, Open Space and Trail typologies and further associating that typology with particular public objectives and service needs of the future population, it remains to distribute the Parks, Open Space and Trails within the town limits of Westlake. The following Figure 129 illustrates this distribution using the Land Use Plan Open Space Community as the basic distribution framework. Association of Parks, Open Space and Trail types with Land Use Districts connects recreational/ natural preservation use targets with other human activities that are compatible with recreation/ natural preservation objectives.

The following Figure 129 accomplishes the above described association. Parks, Open Space and Trail types are listed along the vertical axis, ranging from Active/ Recreation to Preservation effectiveness. Land Use Districts are listed along the horizontal axis ranging from export to import appropriateness (as defined in the Land Use Plan). Arranging land uses in this manner pairs the Parks, Open Space and Trail types with the places of greater and lesser urbanism as envisioned by the Land Use Plan. More active Parks, Open Space and Trail types should be located in areas of greater human activity (more urban), while Parks, Open Space and Trail types meant to have a more preservation purpose should be set in places of lesser human activity. In that the genesis of the Land Use Plan resides in the viewshed and community type analysis (as presented in Part Two: Goals and Citizen Priorities and Framework Plan of this Comprehensive Plan), the spatial arrangement of land use districts is already responsive to natural topographic conditions (which also determines the places of desired preservation measures). Therefore, open

Park, Open Space and Trail to Land Use Distribution																	
		Land Use Districts															
		Sending										Receiving					
Park, Open Space and Trail Type		OS: Open Space	PC-A: Pastoral Community	PC-B: Pastoral Community	CC3-A: Community Commercial	CC2-C: Community Commercial	CC2-A: Community Commercial	CC2-B: Community Commercial	CC2-D: Community Commercial	TC-A: Town Core	TC-B: Town Core	TC-D: Town Core	CC1-B: Community Commercial	CC1-A: Community Commercial	TCO: Town Common	RC-B: Regional Commercial	RC-D: Regional Commercial
Preservation	* Nature Preserves/ Landmark Landforms																
	Rural Ranch Landscapes																
Hybrid	* Connection Open Space																
	* Low Impact/ Nature Trails																
Active/ Recreation	Recreational Open Space																
	Town Trails																
Active/ Recreation	Neighborhood Trails																
	Community Park																
	School Park																
	Neighborhood Park																
	Regional Trails																
	Mini/ Urban Park																
Active/ Recreation	Town Common Public																
	Gathering Space																

Figure 129: Park, Open Space and Trail to Land Use Distribution

\* These areas also fall within the Area of Sensitivity as shown on the Parks and Open Space Plan

space initiatives with a more preservation purpose occur in land use districts identified as Sending Districts in the Land Use Plan element. The following Figure 129 illustrates these associations:

**1. Nature Preserves/ Landmark Landforms** initiatives should occur primarily within the Open Space District as shown on the Land Use Plan with some portion of that initiative also occurring in the Pastoral Community and the

Commercial Community where creek corridors, hill tops, and view sensitive areas exist.

**2. Rural Ranch Landscape** initiatives should occur in the Open Space District as shown on the Land use Plan with portions of that effort also applicable to the Pastoral Community (where residential developments may move to preserve some aspect of the rural heritage) and Commercial Community where some measure of exporting

currently zoned square footage is supported.

3. **Connection Open Space** initiatives are primarily concentrated in the view corridor zones that follow the creek alignment and where significant export of commercial square footage is recommended.
4. **Low Impact/ Nature Trail** initiatives occur primarily within the Open Space District, hill tops, and creek corridor zones.
5. **Recreational Open Space** initiatives occur primarily within master planned developments.
6. **Town Trail** initiatives occur wherever the Town Roadway system is found on the Thoroughfare Plan as such trails parallel the Town Roadways.
7. **Neighborhood Trail** initiatives occur primarily within master planned residential developments.
8. **Community Park** initiatives occur within the Open Space District primarily because of its location in central proximity to the pastoral areas and place where Town Trails and Nature Trails will likely hub. Community Parks can also be located in portions of the Commercial Community (incentivized by exportation of commercial square footage). The NRPA recommends that Community Parks be located within one to three miles from the user population.
9. **School Park** initiatives should occur in proximity to the educational centers of the Town which are located in the Open Space District (Westlake Academy) and the Town Core District (Deloitte University).
10. **Neighborhood Park** initiatives should occur within the residential areas (the Pastoral Community). Most of this park type will be privately provided, but the aforementioned Level of Service Analysis suggests that two are publically provided. The NRPA recommends that such neighborhood parks be located

within ¼ to ½ miles from the user population.

11. **Regional Trail** initiatives should be located with reference to regional destinations, namely the Regional Commercial District. Within this area Town Trails (extending from connection with Neighborhood Trails) can connect the Town Roadway System to the Regional System.
12. **Mini/ Urban Park** initiatives occur within the Town Core and Regional Commercial Districts. The intense use of such parks necessitates that these be located where populations are aggregated and should be 1/4 to 1/2 mile apart.
13. **Town Common/ Public Gathering** initiatives are particularly urban spaces intended to be heavily used. Therefore, such initiatives should occur within the Town Core, Town Common, and Regional Commercial Districts.

### Trail Taxonomy

Trails within Westlake are key elements of the cognitive structure of the Town and are a primary means of trip reduction in a high traffic volume environment, thereby permitting the residents of Westlake a safer and more convenient means of access to the Town's many natural, educational, and commercial assets. Trail Types parallel Roadway Types (as described in the Town Design Structure Plan to follow), and each type has its particular visual identity. Such distinct visual character allows the trail user to quickly understand where they are within the fabric of the Town and where they are relative to the intended destination. As discussed in the Town Design Structure Plan Element, there are three primary Trail Types as follows:

1. **Low Impact/ Nature Trails:** Interpretative pathways are means of public access into natural preserves and other open areas where interpretation is offered. Nature trails are low impact, in terms

of the disturbance they impose upon natural landscapes, and provide an opportunity for a civilized encounter with the natural condition.

2. **Town Trails:** Primary pedestrian connection routes between neighborhood trail heads (as described in the Town Design Structure Plan) and bike/ pedestrian pathways to points of destination such as shopping, working, and/ or schools. Town Trails are meant to reduce locally generated vehicular trips and make the Town more pedestrian friendly, overall.
3. **Regional Trails:** These pass-through pathways for regional traffic connect with the Town Trail System and make Westlake a destination within the regional network.

Each of these Trail Types has particular intersection conditions and depending on the intersection setting, a particular type of trail head is recommended. The trail head types are as follows:

1. **Trail Hub:** A trail HUB is a point of trail intersection where more than two trails intersect. This convergence of movement makes such points places of interchange. At the interchange points decisions have to be made regarding route relative to destination. Therefore, the Trail Hub is equipped with certain informational system capabilities to communicate pathway identity and distance to key destinations. It is often the case that HUB locations are meeting places (an important function flowing from the social significance of trails). Therefore, Trail HUBs would be equipped with seating furniture and possibly a drinking fountain (for adults, children, and pets).
2. **Trail Type Intersection:** When a Town Trail intersects with or converges with a Regional Trail or a public low impact trail intersects or converges with a Town Trail, a trail head is recommended. It

is at such locations that destination decisions are made, that one needs to understand their leaving one type of Trail System and embarking on another Trail System, which will take them farther from home, and that traffic (both pedestrian and bike traffic) may be heavier on the System posing a possible safety concern. Therefore, these places of convergence merit a trail head which identifies the change from one system to another, allows cautionary signage (or traffic calming) on Regional Trails, and communicates the limits of the Town System, thereby establishing a Town Portal.

3. **Neighborhood Trail/ Low Impact/Nature Trail Interface:** Citizen Participants in the Public Planning Workshops expressed significant concern that neighborhood trail systems are protected from access by non-neighborhood traffic, yet participants want a complete trail system that connects their house with natural, educational, and commercial destinations. Therefore, a unique type of trail head is needed at places where the Town or Regional System interfaces with (transitions to) the neighborhood or low impact system. Such a trail head would be equipped with a portal that controls access beyond the point of interface, signage identifying the transition, the name of the neighborhood being served, if applicable, and orientation signage identifying the distance to key destinations.
4. **Mid Trail Focal Point and/ or Interpretative Stations:** Because Preservation is one of the primary objectives of open space development, interpretation of the natural setting is important. Therefore, key points of interpretation (primarily along the Nature Trails) will be identified through an interpretation program in association with the Westlake

TRAIL/ TRAIL HEAD DESIGN										
Park/ Trail Type	Width	Paving	Construction	Benches	Drinking Fountain	Bike Rack	Directional Signage	Interpretative Signage	Information Dissem.	Pavilion
Neighborhood Trail	8	As per development	Standard				Yes			
Low-Impact/ Nature Trail	5 min	Gravel/ other low impact	Low Impact					Yes		
Town Trail	10	Conc.	Standard				Yes			
Regional Trail	12	Conc.	Standard	Yes			Yes			
Trail HUB	2500 sf. min	Decor. conc. with accent	Standard	Yes	Yes	Yes	Yes		Yes	Yes at largest
Trail Type Intersection	1500 sf. min	Decor. conc.	Standard				Yes			
Neighborhood Trail/ Low-Impact/ Nature Trail Interface	N/A	Décor. paver	Standard				Yes		Yes	
Mid Trail Focal Point and/or Interpretative Station	N/A	Low impact const.	Low Impact	Yes				Yes		

Figure 130: Trail/ Trail Head Design

Academy. Depending upon the configuration of the interpretation plot, the trail should laterally expand or have an off shoot (low impact construction), equipped with benches to appreciate the interpretation of the view and interpretative signage as described in the Town Design Structure Plan section.

Figure 130, above, illustrates Trail Types and Trail Heads and particular aspects of their design/ construction.

### Distribution of Parks, Open Space and Trail Activities by Type

The Parks and Open Space Plan above illustrates the distribution of various park types within the Town of Westlake. The rings around Park Type symbols indicate the service areas supporting each. Note that the Community Park service area (one to two miles) covers most of the portion of Westlake currently developed, or potentially developed, for residential use. The two Neighborhood Park service areas (1/2 to one mile) also cover the residential areas of Westlake. Finally, the Urban/ Mini Parks are arrayed across the heavier commercial zones at 1/4 to 1/2 mile apart.

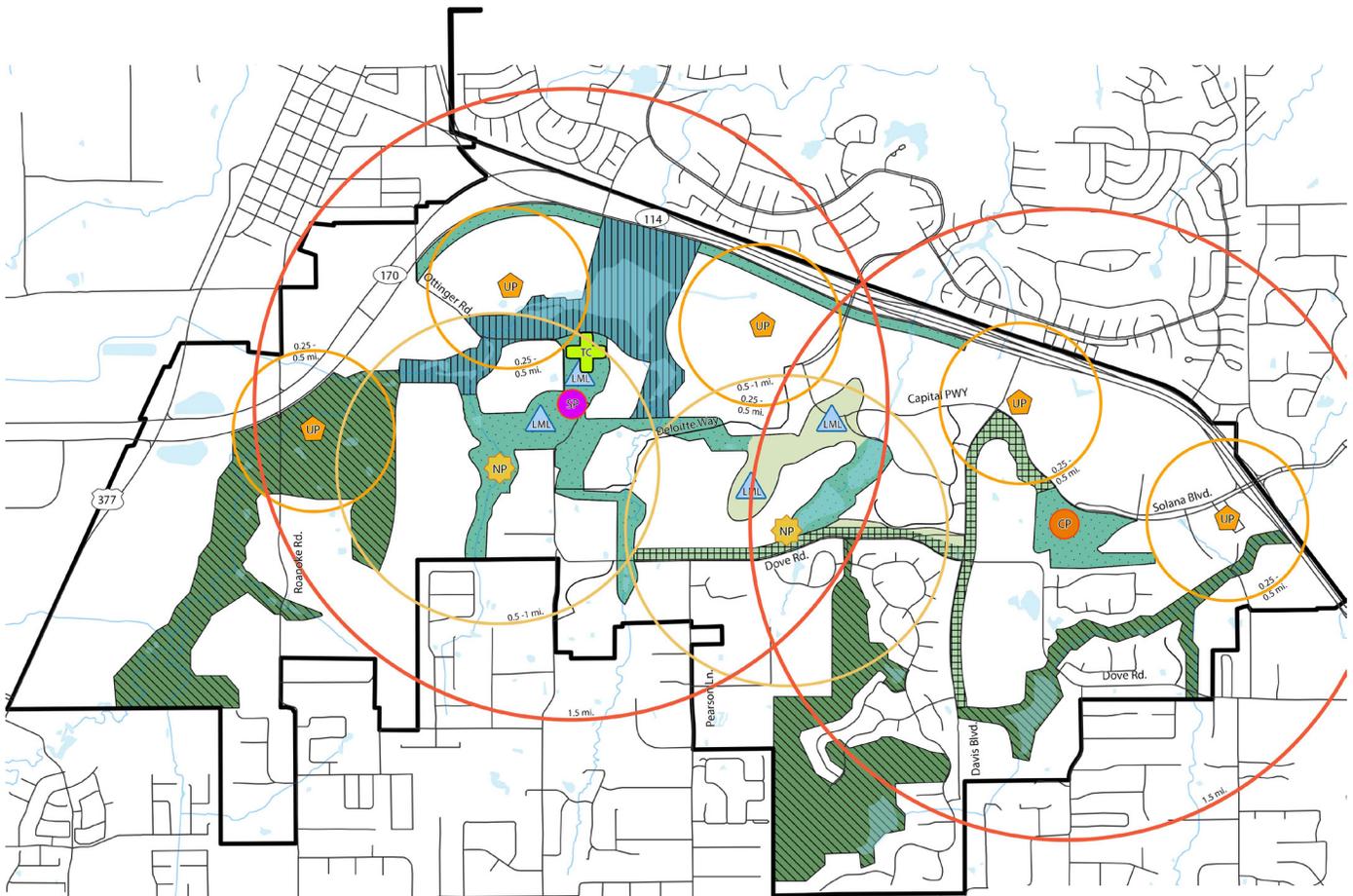


Figure 131: Parks and Open Space Plan

DISCLAIMER: The open space configuration and land area thereof, shown on the Parks and Open Space Plan in no way modifies the open space illustrated by any approved PD Plan or represented by the language/standards of any PD Ordinance. In addition, the open space shown may be either public or private and an open space may not be available to public use or access. This open space configuration and land area is meant to be a guide to the Council in their review of development site plans submitted for their approval, requests by any property owner to amend/ revise any PD plan or PD Ordinance language, request a change of zoning, and/or requests to transfer commercial square footage from one land use district to another are submitted for Council approval (when the legal mechanism for such transfer has been adopted by the Town of Westlake). See Section C of the Implementation Plan for trigger points and other policy related information.

The recreation and park facilities shown on the Parks and Open Space Plan in no way modifies the language of any approved PD Plan or Ordinance. The location of a public recreation or park facility is to be determined through a cooperative Town/ property owner process which takes place as site plans, requests for amendment of any existing Planned Development Ordinance, a request for rezoning, and/or requests to transfer commercial square footage from one land use district to another are submitted for Council approval (when the legal mechanism for such transfer has been adopted by the Town of Westlake). See Section C of the Implementation Plan for trigger points and other policy related information.

-  Recreational Open Space
-  Connection Open Space
-  Natural Preserve
-  Rural Ranch Landscape
-  Areas of Sensitivity
-  Mini/Urban Park
-  Community Park
-  Neighborhood Park
-  Landmark Landform
-  School Park
-  Town Common

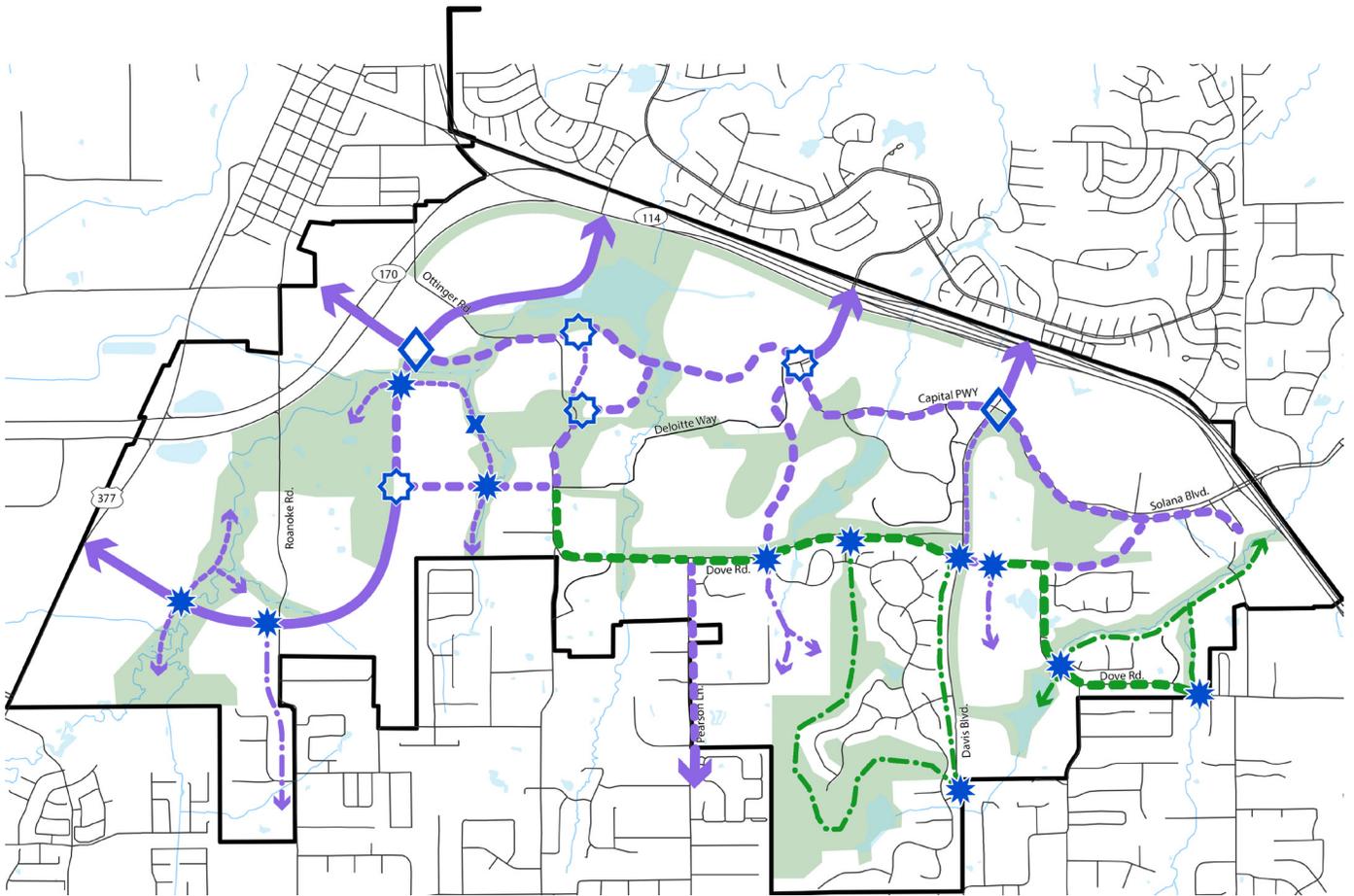


Figure 132: Trails Plan

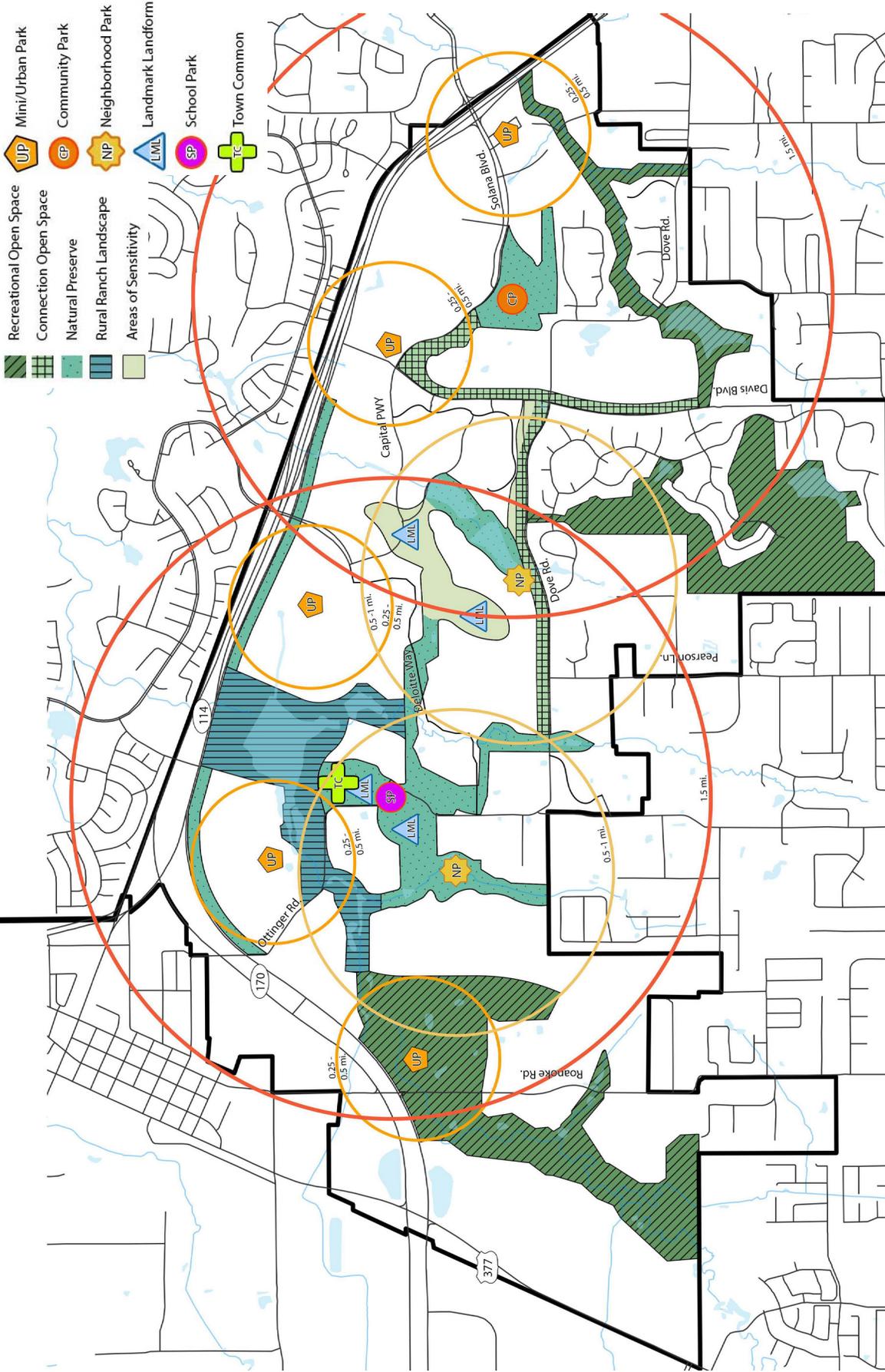
DISCLAIMER: The alignment and connection of trails, shown on the Trails Plan, that are not trails within a street right of way do not modify any approved PD Plan, PD Ordinance, or zoning. Such trail alignments and connections are to be determined through a cooperative Town/ property owner process which takes place as site plans, requests for amendment of any existing Planned Development Ordinance, and/or requests to transfer commercial square footage from one land use district to another are submitted for Council approval (when the legal mechanism for such transfer has been adopted by the Town of Westlake). See Section C of the Implementation Plan for trigger points and other policy related information.

### Application of Trails and Trail Heads

The Trails Plan illustrates the distribution of Trail Types within Westlake and recommended Trail Head locations within that system. The Town Trails closely follow the Town Arterial Roadways (running parallel to the street in a manner similar to the existing trail along Dove Road), and Regional Trails generally run along the Regional Arterials.



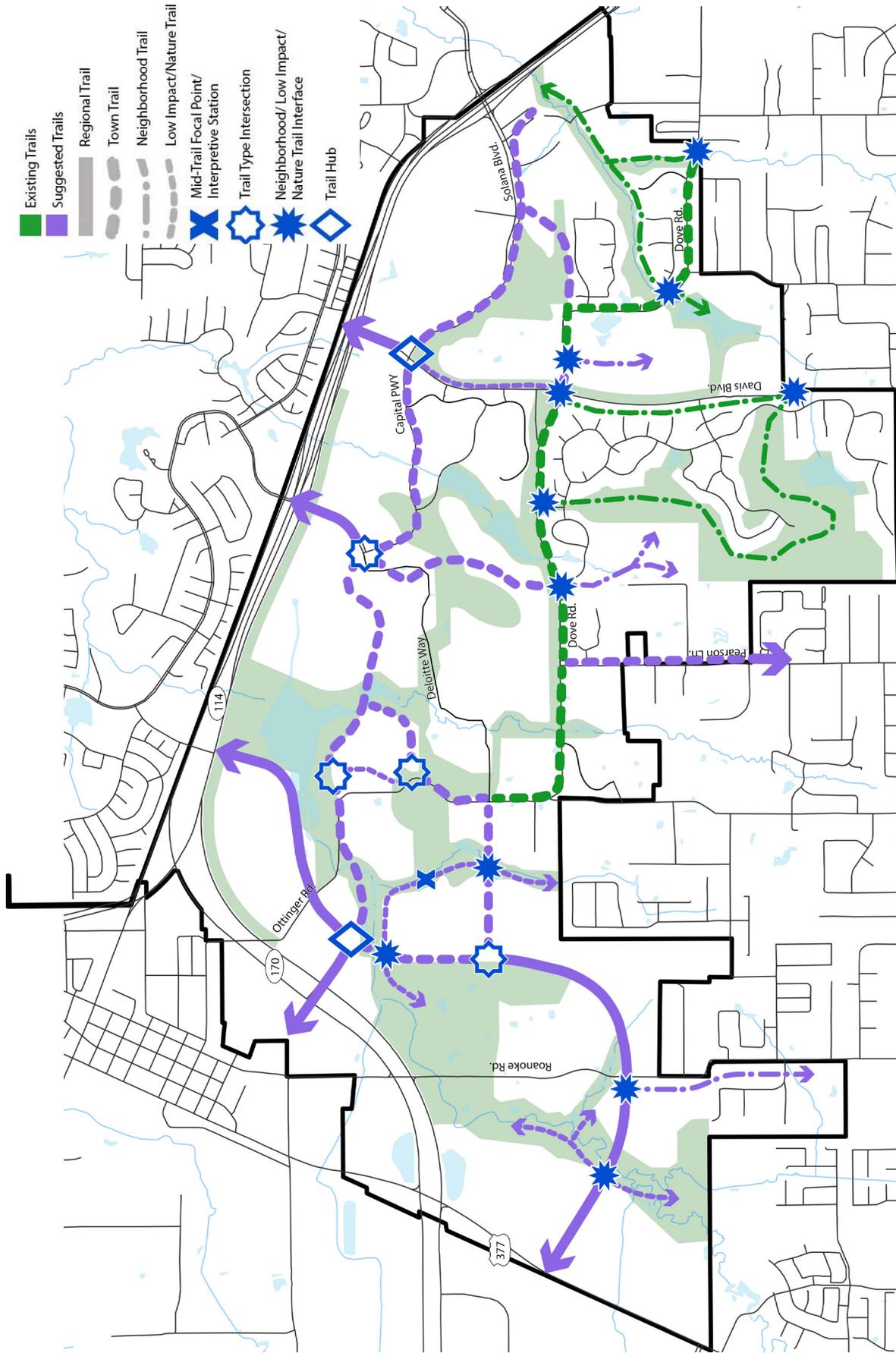
# THE PARKS & OPEN SPACE PLAN



**DISCLAIMER:** The open space configuration and land area thereof, shown on the Parks and Open Space Plan in no way modifies the language/standards of any PD Ordinance. In addition, the open space shown may be either public or private and an open space may not be available to public use or access. This open space configuration and land area is meant to be a guide to the Council in their review of development site plans submitted for their approval, requests by any property owner to amend/revise any PD plan or PD Ordinance language, request a change of zoning, and/or requests to transfer commercial square footage from one land use district to another are submitted for Council approval (when the legal mechanism for such transfer has been adopted by the town of Westlake). See Section C of the Implementation Plan for trigger points and other policy related information.

The recreation and park facilities shown on the Parks and Open Space Plan in no way modifies the language of any approved PD Plan or Ordinance. The location of a public recreation or park facility is to be determined through a cooperative Town/property owner process which takes place as site plans, requests for amendment of any existing Planned Development Ordinance, a request for rezoning, and/or requests to transfer commercial square footage from one land use district to another are submitted for Council approval (when the legal mechanism for such transfer has been adopted by the Town of Westlake). See Section C of the Implementation Plan for trigger points and other policy related information.

# THE TRAILS PLAN



DISCLAIMER: The alignment and connection of trails, shown on the Trails Plan, that are not trails within a street right of way do not modify any approved PD Plan, PD Ordinance, or zoning. Such trail alignments and connections are to be determined through a cooperative Town/ property owner process which takes place as site plans, requests for amendment of any existing Planned Development Ordinance, and/or requests to transfer commercial square footage from one land use district to another are submitted for Council approval (when the legal mechanism for such transfer has been adopted by the Town of Westlake). See Section C of the Implementation Plan for trigger points and other policy related information.



## PART THREE: THE PLAN ELEMENTS

### SECTION FOUR: TOWN DESIGN STRUCTURE PLAN

#### INTRODUCTION

Like many communities caught in the outward expansion of a growing Metroplex, Westlake is experiencing a “regionalization” of its heretofore unique townscape. The tendency of ubiquitous development patterns/ forms (public and private) to erode local and often unique qualities of place has motivated those communities desiring preservation of their visual character to formulate a clear Town Design Structure. The Town Design Structure is a framework intended to promote expressions of these patterns/ forms, which are more responsive to the local characteristics and collectively create a unified identity. However, it is often the case that a Town Design Structure (typically in the form of urban design themes and features) ends up promoting a similarly ubiquitous townscape because it is derived from design conventions repeatedly used and reused in communities throughout Texas and the Nation. Such urban design initiatives are **descriptive** in the sense that they replicate attractive urban design approaches seen and used elsewhere.

A properly crafted Town Design Structure Plan for Westlake must be **prescriptive** instead of **descriptive**. The term “prescriptive” implies that the design initiatives are intended to resolve a particular visual condition and are derived from a more real assessment of the themes/ qualities that characterize the identity of a place. Therefore, it is important to have a methodologically sound means by which such attributes will be identified and affirmed.

**Prescriptive** also means that the purpose of the urban design initiatives are not only aesthetic, they are also intended to give visual presence to an expression of a community form that will create cognitively strong features/ themes upon which one’s mental map of, and recognition of, place is anchored. They must also create a legibility to the fabric of the town so that a sense of “wholeness” can be comprehended. This creates a clear sense of hierarchy so that one’s orientation and identity within the town fabric is always reinforced.

It is historically true that private development (buildings) from place to place will exist in recognizable patterns and have stylistic/ construction qualities that are similar. As a result, buildings seldom distinguish a town unless they represent a unique surviving collection reminiscent of a historic era or comprise the singular work of a noted architect. It is also historically true that the public realm (squares, public spaces, streets, parks, etc.) often vary, which effectively establishes the qualities of place that are remembered/ and recognized. For example, Dallas is more distinguished by Turtle Creek and the improved IH 45 (and other such assets) than its buildings. Therefore, Westlake initiatives to establish, clarify and articulate a distinct quality of place through a Town

Design Structure Plan that addresses streets, portals, nodal points, focal points, edges, and districts is the best means of achieving the Town’s goals that address identity.

The following Town Design Structure Plan identifies the key design settings, key design initiatives, and more specific design actions (explaining how the initiatives should be manifest) to be taken in the various design settings discussed above.

## THE TOWN DESIGN STRUCTURE

The Town Design Structure is a framework of design settings and component parts to which various design initiatives will be applied. It is intended to establish the visual relationship of **nine Design Settings** and tie them together in a unified whole. Design Settings are particular visual components of the hierarchical cognitive structure (Design Structure) that, in its totality, communicates the identity of, and orientation within, the Town of Westlake. More specifically, the Design Settings are:

1. **Streets:** Streets are the primary experiential venue from which residents and visitors gather identifying images and impressions. Also, streets are essential to understanding location and progress toward a destination. The Thoroughfare Plan establishes three Street Types for Westlake. These Street Types are:
  - a. **Neighborhood Streets:** Streets that serve residential lots.
  - b. **Pastoral Collectors:** Streets gathering residential traffic as it moves to and from residential neighborhoods.
  - c. **Town Arterials:** Streets that serve the Town Community, View Shed Community, and Town Core as defined in the Land Use Plan.
  - d. **Regional Arterials:** Streets that serve

the Regional Community as defined in the Land Use Plan.

Each Street Type has its place in a recognizable hierarchy that communicates both the image identified as Westlake and one's location within Westlake. This is accomplished with landscaping, street lighting, street signage, information systems, and street section design that typifies the Street Type. A progressive intensification of identifying elements (along certain streets) communicates movement from edge to center.

- 2. Intersections:** A key aspect of streets is the character of important intersections. Important intersections include:
  - a. Intersection of a Town Arterial with a Pastoral Collector:** These happen at places where Dove Road and the southern portions of Roanoke Road intersect with new east/west arterials (as shown on the Thoroughfare Plan).
  - b. Intersection of a Town Arterial with another Town Arterial:** These happen in places where the two main east to west arterials of the Town System are tied together by north/ south connectors.
  - c. Intersection of a Town Arterial with a Regional Arterial:** These happen where the east/west Town Arterials intersect with a primary commercial street of the Regional Community that connects with SH 114.
- 3. Trails and Sidewalks:** Like streets, trails are also an experiential venue with significant power to communicate Town identity and orientation. This is accomplished with landscaping, signage, pedestrian furniture/ fixtures, trail heads, signage, and street

crossings. Key Trail Types include:

- a. On-Street Bike Trails:** These are dedicated bike lanes that share street space with vehicular traffic.
  - b. Street Parkway Trails:** The Town Arterials and the Regional Arterials will have a flanking trail on at least one side. The trails flanking Town Arterials will be the Town Trail and the trails flanking the Regional System will be Regional Trails, making contact to the trail systems extending beyond Westlake.
  - c. Trails Engaging Neighborhoods:** The Public Workshops stressed the importance for public trails to go "around" neighborhoods and not "through" neighborhoods, yet neighborhoods will likely have internal trail/ sidewalk systems that need to make connection with the Town System. Therefore, where a public trail connects with a Neighborhood Trail, certain measures are needed to prevent invasion of the neighborhood boundary by full public use.
  - d. Trails through Open Spaces:** The central open space network is host to most of the Town Trail System. Therefore, the treatment of trails within this open space is important.
- 4. Edges:** Edges are experience start points; the recognition of which signals when the identifying visual impressions will commence. Edges require points of connection. It would be difficult to have a Town Design Structure without edges as a foundational element upon which to build the structure. Like places of arrival, edges are places of beginning. Edge conditions include:
    - a. Regional Edges (SH 114):** The interface of Westlake with a major regional corridor (SH 114) needs to communicate a comprehensible

identity to the regional population. Therefore, treatment of this edge is critical to giving Westlake a recognizable identity along the SH 114 corridor. Failure to establish this identity pulls Westlake into the ubiquitous corridor identity of SH 114, which passes through cities like Grapevine and Southlake without making distinction of one community from another.

**b. Neighborhood Edges:** Neighborhood Edges are critical for neighborhood integrity. However, the articulation of those edges can subdivide the ground plane with opaque walls and other hard division, which begin to suburbanize the rural landscape.

**c. Commercial Edges:** Commercial edges are important as they often abut residential or open space areas. Walls and security fences can communicate separation of town elements rather than organic cohesion. Also, parking aprons moved to the edge can amplify separation rather than connection. Therefore, initiatives are needed to overcome these potentials.

**d. Open Space Edges:** Open spaces are meant to be remnants of the historic rural landscape and to serve as seams that bind commercial and residential uses together. Therefore, porous edges are more preferred than barrier edges.

**5. Arrival and Focal Points:** Points of arrival, points of focus/ interchange, or points of significance must be recognizable in order to give meaning to the Town Design Structure. The Town Design Structure imparts information meant to support recognition, and without such demarcation to recognize, the cognitive structure fails its purpose. Key arrival and focal point conditions include:

**a. Town Common:** The main place of arrival should be the Town Common. This is the hub of the community and the destination of the Town Road System. Therefore, arrival, and sequence of movement to the Town Common should be monumented.

**b. Southern Entry Points:** There are numerous roads entering Westlake from the south (from Southlake and Keller). Development along these roads is not responsive to municipal boundaries and gives no visual indication as to where one city ends and another begins. Therefore, some form of monumentation is needed to identify such boundaries.

**c. SH 114 Entry Points:** Major entries into the Town occur along SH 114. Therefore, the experience of Town is enhanced by portals that visually celebrate such entry.

**6. Active Public Spaces:** An important point of arrival/ focus will be active public space, such as public plazas, recreational parks, and city cultural assets. Therefore, such active open spaces should have identifying elements that visually connect them to the Town Design Structure. These identifying elements include monumentation, paving, pathway connections, pedestrian furniture/ fixtures, information systems, lighting, and signage. Key Active Public Space conditions include:

**a. Major Gathering Spaces:** As Westlake moves from its currently small population to population levels seven times larger (projected 2036 population), it will need spaces in which the Town population can conduct certain public gathering activities. One such space will likely be located within the Town. Others could be located at the Town Hall,

major retail venues, aggregated office locations, and in proximity to the educational venues. Treatment of these spaces should conform to some uniform standards of design that makes their function and use easily identifiable.

- b. Minor Gathering Spaces:** In addition to major gathering spaces, future populations will likely call for smaller spaces where small gatherings (more familial or neighborhood related) can be conducted. These could be small spaces along trails, such as amphitheaters or lateral expansions of the sidewalk in commercial or municipal areas. Like Major Gathering Spaces, treatment of these spaces should conform to some uniform standard of service and offerings that makes their function and use easily identifiable.
- c. Recreational Parks:** The Parks and Open Space Plan identifies the need for Recreational Parks in Westlake. Standards of user accommodation that will distinguish Westlake should be imposed upon each Park Type.

**7. Passive Public Spaces:** According to the Land Use Plan, Passive Open Space will be a significant visual experience acquired from streets, trails, and Vista Points throughout the Town. These passive open spaces are the essence of Westlake's identifying character. Therefore, it is important to maintain them in a condition reflective of that identity. This essential character is rural, which is manifest in fencing type (edge definition), pathway alignment, pasture land to wooded land balance, and landscape materials. Key Passive Open Space conditions include:

- a. Conservation Open Spaces:** The Public Workshops expressed a desire to preserve/ conserve the

natural, picturesque, pastoral landscape. Such preservation may require selective restoration and conservation, especially of remaining natural systems. Therefore, how these areas will be recognized within the Town Design Structure requires understanding.

- b. Landmark Landforms:** The View Analysis in Part Two of this Comprehensive Plan identifies certain view terminals as important natural features that define many of the characteristic views enjoyed by residents. Therefore, how these features will be recognized within the Town Design Structure requires understanding.
- c. Rural Heritage Areas:** Certain open space areas may continue to be managed as agricultural activities. In such instances public observation and participation would be an asset to quality of life. Therefore, the Town Design Structure Plan should address these potential areas.

**8. Public Facilities:** As Westlake grows it will likely need additional public facilities such as police and fire facilities. These are opportunities to further reinforce the identity of Westlake through site placement, signage, paving, landscaping, and pedestrian connection. Key Public Facilities include:

- a. Police Facilities:** The Facilities and Town Hall Plan to follow identifies that Westlake at build-out will require additional police facilities. How these facilities are recognized within the fabric of the Town, defines their potential contribution to its cognitive structure.
- b. Fire Facilities:** The Facilities and Town Hall Plan to follow identifies that Westlake at build-out will require

additional fire facilities. How these facilities are recognized within the fabric of the Town, defines their potential contribution to its cognitive structure.

**c. Municipal Facilities:** As Westlake grows, it will require more space for its Town Hall functions and municipal employees. This may further require the establishment of a new Town Hall facility. In such an event, the new facility should have more public space than the present facility and be more engaged with fabric of the Town, making it a significant landmark for the future.

**9. Site Open Space:** As Westlake grows, the abundant openness of the landscape will begin to infill with development. Therefore, it is important to establish minimum open space allotment areas within any site. While recommended restrictions to building coverage (as specified in the Land Use Plan) accomplish most of this goal, further clarification is justified in the Town Design Structure Plan. Key Site Open Space settings include:

**a. Parking Lots:** Westlake has done a good job in promoting structured parking over surface parking. However, that may not be as feasible where conventional retail development is concerned. Therefore, open space standards relative to surface parking are justified.

**b. Site Landscaping:** Site Landscaping is the amount of a site area that is set aside for landscape development or natural system preservation.

**c. Buffers:** Buffers are recommended in those locations where a commercial use abuts a residential use or open space. The effect is to provide a proper edge to residential locations

and/ or visually expand town open space into private development.

## TOWN DESIGN STRUCTURE AND THEMATIC ELEMENTS

Within the Town Design Structure and its framework of component parts (presented above), various design initiatives are needed that will, in their manifestation, create a coherent urban design fabric for the Town, a fabric which distinguishes Westlake from other cities, enhances value, and enriches quality of life. These design initiatives include:

- Pavement
- Lighting
- Signage
- Landscaping
- Information Systems
- Furniture
- Traffic Signalization
- Bridges
- Cross Drainage Structures
- Facilities and Special Features
- Traffic Calming
- Pedestrian Crossings
- Marking/ Demarcation
- Trail Heads
- Portals
- Landscape Buffers/ Landscape Setbacks
- Fences and Walls
- Major Monuments
- Minor Monuments
- Banners/ Flags
- Built Amenities/ Public Art
- Safety
- Furniture
- Street Recognition (by Public Facilities)

Each of the following tables lay the above listed design initiatives (shown on the vertical axis) against the earlier described Design Settings (shown on the horizontal axis) and portrays how the applicable

initiative is manifest in each of these Design Settings (manifestations presented within the intersecting table cell). In its totality, the tables present a Town Design Structure for Westlake that assigns

particular design actions and/ or standards to the key design settings that comprise the overall Town Design Structure. More specifically the tables are:

<b>1. STREETS</b>				
	<b>Neighborhood St.</b>	<b>Pastoral Collector</b>	<b>Town Arterial</b>	<b>Regional Arterial</b>
<b>Section Design</b>	2 In	2 In	4 In- divided	4 In- divided
<b>Pavement</b>  <i>See street sections</i>	Concrete or Asphalt with custom design curb unique to the neighborhood or standard vertical or roll up curb.	Concrete or Asphalt with a laydown curb (flat curb) that allows run off to barrow ditches.	Concrete with vertical curb and variable median width (minimum median width = 14 ft. which can narrow for left turn storage lanes)	Concrete with vertical curb and uniform median (typical median width = 14 ft. which narrows for left turn storage lanes)
<b>Lighting</b>  <i>See lighting and signal palette figure</i>	Individual thematic fixtures and standards as determined by the project developer and approved by the Town of Westlake	Rural light standards and fixtures placed at intersections and no less than one fixture every 1,000 ft. (see lighting palette)	Period street standard and fixture with dual fixture masts and banner arms (see lighting palette). Placed in the median, spacing as per manufacturer's recommendation.	Westlake Parkway standard and fixture continued from the Service Roads of Highway 114, into the Regional Road connections of development fronting Highway 114 within the Regional Community.
<b>Signage</b>  <i>See signage figure</i>	Street name signs as per the development design  Traffic signage mounted in Town thematic frame upon city thematic standard at uniform visual heights  Way-finding signage as per Town way-finding sign program with uniform sign format and standard.	Street names presented in Town format with uniform pole mounted, backlit street name signs with the Westlake logo.  Traffic signage mounted in Town thematic frame upon city thematic standard (compatible with period street light standards), at uniform visual heights  Way-finding signage as per Town way-finding sign program with uniform sign format and standard.	Street names presented in Town format with uniform pole mounted, backlit street name signs with the Westlake logo.  Traffic signage mounted in Town thematic frame upon city thematic standard at uniform visual heights  Way-finding signage as per Town way-finding sign program with uniform sign format and standard.	Street names presented in Town format with uniform pole mounted, backlit street name signs with the Westlake logo.  Traffic signage mounted in uniform frame that is compatible with street light standards, at uniform visual heights  Way-finding signage as per Town way-finding sign program with uniform sign format and standard.
<b>Landscaping</b>  <i>See approved plant list</i>	Landscape design and plant materials as per approved development design.	Trees: Natural Drifts of trees including both canopy and understory planting. Purpose to reknit the natural plant fabric.  Grasses: low maintenance Native pasture grasses.  Ornamental planting: Flowering native shrubs at horizontal deflectors.	Trees: Natural Drifts of trees including both canopy and understory planting. Purpose to reknit the natural plant fabric in all Town Core approaches and open space areas. Tree placement shifts toward more composed alignment and understory dissipates as the Town Arterials arrive at more urbanized areas.  -Grasses: low maintenance Native pasture grasses  Ornamental Trees: Flowering native trees at public entries and street intersection.	Trees: Composed, uniformly spaced placement of canopy trees.  Grasses: Maintained native grasses or hybrid grass varieties. Contiguous grass planting from project to project must maintain a consistent grass variety.  Shrubs: plant varieties attaining a minimum 36 in. height screening surface parking areas from street view.  Ornamental trees and shrubs: At project entries and median cuts

1. STREETS				
	Neighborhood St.	Pastoral Collector	Town Arterial	Regional Arterial
<b>Information Systems</b>  <i>See information figure</i>	As per Town approved development design by project developer	N/A	Information Kiosks: Placed in close proximity to the portal entries and in close proximity to the Town Common.  Banners: Placed along Town Arterials connecting to the Town center.	Information Kiosks: Placed at major intersections and pedestrian crossing points.
<b>Furniture</b>  <i>See furniture palette</i>	As per Town approved development design by project developer	N/A	Pedestrian benches and trash receptacles: Placed so that there are at least 2 benches and trash receptacles per block in the Town Core.  Pedestrian lighting: along sidewalks and Town/ Regional Trails flowing to the Town Common.  Pedestrian Bench and transit canopy: one at each transit stop.	Pedestrian benches and trash receptacles: Located within the projects.  Pedestrian Bench and transit canopy: one at each transit stop.
<b>Traffic Signals</b>  <i>See lighting and signal palette figure</i>	When required by warrant: Traffic signal standard, arm, and fixture to be a period design that matches the Town street light standard.	When required by warrant: Traffic signal standard, arm, and fixture to be a period design that matches the Town street light standard.	When required by warrant: Traffic signal standard, arm, and fixture to be a period design that matches the Town street light standard.  Traffic signals at the intersection of a Town Arterial with a Town Arterial should have banner arms.	When required by warrant as per TxDOT standard.
<b>Bridges</b>  <i>See bridge examples</i>	As per Town approved development design by project developer	To match existing specialty bridges along Dove Road	To match existing specialty bridges along Dove Road with the addition of bridge lights	To match existing specialty bridges along Dove Road with the addition of bridge lights
<b>Cross Drainage Structures</b>	As per Town approved development design by project developer	Stone headwalls	Stone headwalls with bridge rails	Stone headwalls
<b>Public Facilities</b>	N/A	N/A	Fire/ Police: Specialized street paving, which makes rumble sound when driven over, at emergency facility locations.  Transit Stop: make provision for public transit stop. One potential stop per 1200 ft. within ¼ mile of the Town Common and one potential stop per 2500 ft. elsewhere.	Fire/ Police: Specialized street paving, which makes rumble sound when driven over, at emergency facility locations.  Transit Stop: make provision for public transit stop. One potential stop per 1200 ft. within the Regional Community.

<b>2. Intersections</b>			
<b>Design Element</b>	<b>Town Arterial Intersection with Pastoral Collector</b>	<b>Town Arterial Intersection with Town Arterial</b>	<b>Town Arterial Intersection with Regional Arterial and at intersections around Town Centers</b>
<b>Traffic Calming</b>	Horizontal deflection at entrance to Pastoral Connector. Horizontal deflection islands shall have ornamental planting.	N/A	N/A
<b>Pedestrian Crossing Demarcation</b>	Decorative paving that defines the pathway only. Use natural stone pavers that make a sound when driven over.	Decorative paving of the pedestrian pathway with ornamental paver circle in center. Use a pavestone product which matches existing use of pavestone at Dove Road and Precinct Line Road intersection.	Decorative paving of the pedestrian pathway, circle, and within the frame defined by the pedestrian pathway. Use a pavestone product which matches existing use of pavestone at Dove Road and Precinct Line Road intersection,
<b>Lighting</b>	N/A	Enhanced lighting from fixtures mounted on Traffic Signal standards (where they exist) and another similar standard located on an opposing corner (or two opposing corners where traffic signals do not exist).	Enhanced lighting from fixtures mounted on Traffic Signal standards (where they exist) and another similar standard located on the other three corners (or two opposing corners where traffic signals do not exist).
<b>Signage</b>	Intersection related signage to be mounted to thematic street sign standard where possible.	Intersection related signage to be mounted to intersection lighting standard where possible.	Intersection related signage to be mounted to intersection lighting standard where possible.
<b>Pedestrian Safety</b>	Disabled pedestrian ramps and markings as per ADA standards	Disabled pedestrian ramps and markings as per ADA standards	Disabled pedestrian ramps and markings as per ADA standards
<b>Information Systems</b>	N/A	See street information system above	See street information system above

3. Trails				
Design Element	On-Street Bike Trails	Street Flanking Trails	Trails Engaging Neighborhoods	Trails through Open Spaces
<b>Applicable Standard</b>	AASHTO	AASHTO	AASHTO	AASHTO
<b>Marking</b>	Land demarcation: Painted bike lane marker with vertical "tubular" lane dividers.  Bike lane symbol: on pavement	Town and Regional demarcation cast into Trail Pavement.  Educational message or graphic cast in 5 ft. long sections every ¼ mile.	Privacy markers: In pavement (as neighborhood boundary approaches) and privacy signs at the interface with neighborhoods.	Pathway destination identifier: cast into trail pavement.  Edge marking: where grade (off trail) exceeds 5%
<b>Material</b>	Same as street pavement	Buff Concrete	Dark Concrete transitioning to stone at the neighborhood interface	Buff Concrete
<b>Trail Head</b>	N/A	Location: Trail intersections and points of convergence (hub).  Features: Identification signage, Kiosks, bike racks, benches, drinking fountain, decorative paving at major hubs. Identification signage, bike racks, benches, and decorative paving at other intersections.	Location: At interface between Neighborhood Trail and another Trail.  Features: Identification signage, surface paving, interface portal.	Location: At interface between a nature trail and another trail, as well as points of interpretation.  Features: Identification signage, interpretative signage, benches, bike racks.
<b>Lighting</b>	N/A	Ambient light level of at least .2 ft. candles. Low lighting of the path only is acceptable.	Pools of Light:	Pools of Light: Uniform light at interface with commercial destinations:
<b>Signage</b>	N/A	Trail head name: on Trailhead marker. Caution signage: Mounted in uniform frame on a uniform standard that matches Town traffic sign frame and standard	Trail head name: on Trailhead marker. Caution signage: Mounted in uniform frame on a uniform standard that matches Town traffic sign frame and standard.	Trail head name: on Trailhead marker. Caution signage: Mounted in uniform frame on a uniform standard that matches Town traffic sign frame and standard.

3. Trails				
Design Element	On-Street Bike Trails	Street Flanking Trails	Trails Engaging Neighborhoods	Trails through Open Spaces
<b>Applicable Standard</b>	AASHTO	AASHTO	AASHTO	AASHTO
<b>Landscaping</b>	Trees: Canopy trees for shade comfort, elimination of understory for safety. Canopy trees in drifted clusters as needed to reknit natural fabric.  Grasses: Native, short variety, low maintenance grasses.	Trees: Canopy trees for shade comfort, elimination of understory for safety. Canopy trees in drifted clusters as needed to reknit natural fabric.  Grasses: Native, short variety, low maintenance grasses.	Trees: Canopy trees for shade comfort, elimination of understory for safety. Canopy trees in drifted clusters as needed to reknit natural fabric.  Grasses: Native, short variety, low maintenance grasses.	Trees: Canopy trees for shade comfort, elimination of understory for safety. Canopy trees in drifted clusters as needed to reknit natural fabric.  Grasses: Native, short variety, low maintenance grasses.
<b>Information Systems</b>	Trail Name: Trail name sign in Town thematic frame mounted on Town standard.	Trailhead Markers: Trail head monument markers which display the city logo, the trail head name, trail name, and any appropriate historic information interpreting the rural heritage of Westlake.  Way-finding: destination markers cast in pavement and displayed at trail heads. Trail name signs: Located at each trail intersection, trail heads, and intersection of a trail with the street	Trailhead Markers: Trail head monument markers which display the city logo, the trail head name, trail name, and any appropriate historic information interpreting the rural heritage of Westlake.  Way-finding: destination markers cast in pavement and displayed at trail heads. Trail name signs: Located at each trail intersection, trail heads, and intersection of a trail with the street.	Trailhead Markers: Trail head monument markers which display the city logo, the trail head name, trail name, and any appropriate historic information interpreting the rural heritage of Westlake.  Way-finding: destination markers cast in pavement and displayed at trail heads. Trail name signs: Located at each trail intersection, trail heads, and intersection of a trail with the street.  Special interpretative markers: periodic low post mounted signs that explain historic information or identify particular plant species/wildlife habitat. These signs are a uniform color, painted on metal.
<b>Furniture</b>		Pedestrian benches and trash receptacles: located at trail head. Bench and trash receptacle should be built into trail head marker.  Water Fountain: Located at Trail head serving 2 or more trails.	Pedestrian benches and trash receptacles: located at trail head. Bench and trash receptacle should be built into trail head marker.  Water Fountain: Located at Trail head serving 2 or more trails.	
<b>Street Crossing</b>	N/A	All trails should cross streets at an intersections where pedestrian crossings are provided (described above in intersections)	All trails should cross streets at an intersections where pedestrian crossings are provided (described above in intersections)	All trails should cross streets at an intersections where pedestrian crossings are provided (described above in intersections)

4. Edges				
Design Element	Regional Edges (Highway 114)	Neighborhood Edges	Commercial Edges	Open Space Edges
<b>Portals</b>	Entry Portals	N/A	Boundary portals	Gateways:
<b>Landscape Buffers/ Landscape Setbacks</b>	114/ 170 Landscape Zone: The Town of Westlake has an existing requirement for a 70 ft. landscape set back from highway 114 and 170. This area should be heavily forested where development is uphill from the set back and planted in natural drifts of trees where development is at the same level (thereby allowing visual penetration. Effort should be made to screen parking with berms that separate the visual experience from the hardscape of surface parking. 114 and 170 buffer areas should be planted with native grasses of varying height that allow the creation of grass drifts in the landscape composition. See plant palette for selection options.	Boundary softening: Neighborhood edges should be planted with natural drifts of trees containing both evergreen and deciduous varieties as well as conifers that contain branch structure from ground to crown. The complexity of leaf textures and plant forms will obscure the continuous presence of perimeter walls and fences. See plant palette for selection options.	Extension of street landscape: To create greater visual connectivity across commercial roadways, project edges should bring the roadway landscaping into the project and transition to project landscaping instead of creating a landscape change line at the project boundary. This will also increase the sense of public domain. The plant selection for this merger of landscapes will be derived from the streetscape palette used.	Rural restoration: Open Spaces are opportunities to restore and preserve the rural heritage of Westlake. Therefore open spaces edges should be treated as rural edges with rural fencing and an uninterrupted ground plane that extends from the street into the open area (no intervening walls or plant screens)
<b>Fencing and Walls</b>	Walls and/ or fences in this area are discouraged. If used they should be screened with trees and understory planting that will conceal the wall or fence. Only agricultural fencing may be fully visible.	Opaque privacy walls or fences abutting any street or public open space should be landscaped to provide boundary softening (as discussed above). Minimize neighborhood walls or fences as much as possible.	No walls or fences at any edge interfacing a street unless it is screened or in the front yard space of commercial development.	Agricultural fences or planted screens only.
<b>Landscaping</b>	See plant palette for selection options.	See plant palette for selection options.	See plant palette for selection options.	See plant palette for selection options.

<b>5. Arrival and Focal Points</b>			
<b>Design Element</b>	<b>Town Hub/ Common</b>	<b>Southern points of Entry</b>	<b>Highway 114</b>
<b>Major Monuments</b>	Land Mark Monument: Town Center Landmark attaining a height of at least 35 ft., iconic expression of Texas rural heritage. This is a stone structure with features/ details derived from rural/ ranch references.	N/A	Identity Monuments type 1: Monuments integrated with overpass structures crossing Highway 114 at Davis Road/ Precinct Line Road, Westlake Parkway A, and Westlake Parkway B. These identity monuments will have characteristics compatible with the existing monuments at Westlake Parkway overpasses.  Identity Monuments type 2: Dove Road and Roanoke Road Pylons that build off of the Pylons already located at Solana.
<b>Minor Monuments</b>	N/A	Approach monuments: Minor monuments which are visually compatible with the Identity monuments (Major Monuments) should be located at southern points of entry to Westlake, along Ottinger Road, Pearson Lane, Randol Mill/ Precinct Line Road, Peytonville Road, Shady Oaks Drive.	N/A
<b>Lighting</b>	Internal Illumination: Internal lighting that contributes to a night form for the Town Common.  Activity Down Lighting: For pedestrian gathering areas Increased Ambient Street Light: More frequently placed street lights (perhaps moving from median to road edge) to raise light levels within the urbanized area.	External Illumination: Up-lighting of the monument and its messaging.	External Illumination: Up-lighting of the monument and its messaging.
<b>Information Systems</b>	Town Identity: The name and logo of Westlake, Texas Event Information: Electronic reader board capable of showing information about upcoming events, public notices, public service. Memorial Information: Inscriptions and dedication plaque (s) Time: Traditional Clock	Town Identification: The name and logo of Westlake, Texas	Town Identification: The name and logo of Westlake, Texas

<b>6. Active Public Spaces</b>			
<b>Design Element</b>	<b>Major Public Gathering Space</b>	<b>Minor Public Gathering Spaces</b>	<b>Recreational Parks</b>
<b>Paving</b>	<p>Stove Pavers: True stone pavement reminiscent of a traditional Town Square used as an accent and design enhancement of the general paving.</p> <p>Scored Concrete: The general paving of the gathering space.</p> <p>Decomposed Granite: Ancillary and other areas for bench placement.</p>	<p>Scored Concrete: The general paving of the gathering space.</p>	<p>Concrete Trails, walkways, and ancillary use spaces: In all high traffic and intense use activity areas.</p> <p>Decomposed Granite seating and ancillary activity areas: In areas of lesser use and use intensity.</p>
<b>Landscaping</b>	<p>High traffic tolerant grass: Within a distance from major gathering space that is no less than 200 ft. (where such lateral space exists).</p> <p>Canopy Trees: Planted to clarify definition of gathering space and to provide shade to seating/ activity areas.</p>	<p>High traffic tolerant grass: Within a distance from major gathering space that is no less than 75 ft. (where such lateral space exists).</p> <p>Canopy Trees: Planted to clarify definition of gathering space and to provide shade to seating/ activity areas.</p>	<p>High traffic capacity grass in event fields: Traffic tolerant hybrid grass on all sports fields or open areas where intense use is expected.</p> <p>Native Grass: Defining edges of traffic tolerant grass areas. These remain unmown (except as recommended for annual cropping) to demark use areas in the same manner as a fairway and the rough in golf.</p> <p>Canopy Trees: Planted in natural drifts to accentuate non traffic areas and restore native landscape.</p>
<b>Lighting</b>	<p>Pedestrian Lighting: Pedestrian lighting along edge of gathering area that is visually similar to the period street lighting and other pedestrian lighting for Westlake.</p> <p>Landscape Lighting: up and down lights at all trees in tree wells that define the public space. Down lights only in bench areas.</p>	<p>Landscape Lighting: up and down lights at all trees in tree wells that define the public space. Down lights only in bench areas.</p>	<p>-Sports Lighting: Appropriate field lighting in team sport areas.</p> <p>Pedestrian Lighting: Pedestrian lighting along walks to sport areas from parking areas.</p> <p>Parking Lighting: Parking lot lights when parking is provided that maintains a .2 foot candle ambient light level.</p>
<b>Signage</b>	N/A	N/A	<p>Sponsorship panels: Space to display corporate sponsorship of sport activities. Such displays shall be mounted in a uniform frame and within a designated area for such display.</p>

<b>6. Active Public Spaces</b>			
<b>Design Element</b>	<b>Major Public Gathering Space</b>	<b>Minor Public Gathering Spaces</b>	<b>Recreational Parks</b>
<b>Banners/ Flags</b>	Standards for Banners incorporated with Pedestrian Lighting: vertical banners, attached top and bottom, for display of events, seasons, corporate sponsorship, etc.  Flag Plaza: Flag poles for the US, Texas, and Westlake Flag.	N/A	N/A
<b>Built Amenities/ Public Art</b>	Water feature: Opportunity for a public water feature such as a pool fountain or squirt fountain with a changing water display.  Memorial: Opportunity for memorial honoring leaders and civic heroes of Westlake.  Art Installation: All public gathering spaces are opportunities for public art. It is preferable that art is intrinsic to the design of the space rather than a commissioned piece to be installed in the space.	Art Installation: All public gathering spaces are opportunities for public art. It is preferable that art is intrinsic to the design of the space rather than a commissioned piece to be installed in the space.	N/A
<b>Information Systems</b>	Town Identity: Westlake name, date of founding, and logo engraved into stone material of monument.  Event Information: Electronic reader board capable of showing information about upcoming events, public notices, public service.  Memorial Information: Inscriptions and dedication plaque  Time: Traditional clock	Town Identity: Westlake name, date of founding, and logo engraved into stone material of monument.	Town Identity: Westlake name, date of founding, and logo engraved into stone material of monument.
<b>Furniture</b>	Pedestrian benches and trash receptacles: Placed around edge of gathering space and/ or along walkways to the activity space.  Drinking Fountain: Public free standing drink fountain providing water for adults, children, and pets.	Pedestrian benches and trash receptacles: Placed around edge of gathering space and/ or along walkways to the activity space.	Pedestrian benches and trash receptacles: Placed along pathways to and around sport activity area. At least 1 bench per 300 ft.
<b>Special Features</b>	Public Restroom: Located in a specialized structure within 300 ft. of activity space.	N/A	Public Restroom: located to serve multiple sport activity areas.

<b>7. Passive Public Spaces</b>			
<b>Design Element</b>	<b>Conservation Open Spaces</b>	<b>Landmark Landforms</b>	<b>Rural Heritage Areas</b>
<b>Public Accessibility</b>	Designated Public Access: Directed access to interpretative stations and viewpoints. Access to other areas limited to on-foot access with no trail availability.	Designated Public Access: Directed access via trail to interpretative stations and viewpoints. Access to other areas limited to on-foot access with no trail availability.	General Public Access and participation: General public access via improved walks and activity areas to interpretative and demonstration events.
<b>Facilities</b>	Trails: Concrete trails to interpretative stations and vista points.  Interpretative Exhibits: - Interpretative signage for various plant types, vegetative communities, wildlife habitats, and conservation awareness that are painted on metal and color coded according to message type.  Vista Platforms: Paved, designated viewing area with bench facilities.	Trails: concrete trails to vista platforms.  Vista Platforms: Paved, designated viewing area with bench facilities.	Interpretive Exhibits: Programmed interpretative events that portray rural heritage of Westlake or promote conservation practices.  Participation Demonstration structures: Wood pavilion structures that provide shelter for demonstrations. Such structures should be capable of reconfiguration in accordance with space and viewing requirement of the demonstration. Drinking Fountain: Combined Fountain for adults, children, and pets no more than 300 ft. from the event areas. Trails: Decomposed granite walkways to demonstration areas and parking areas. Gathering Structures: Thematic structures for large gathering event.
<b>Landscaping</b>	Natural fabric restoration: See plant list for selection. Objective to restore native grass, native trees and native understory at appropriate locations.	Natural fabric Restoration: See plant list for selection. Objective to restore native grass, native trees and native understory at appropriate locations.	Pasture: Native pasture Grass (see plant list for selection)  Fence line Trees: Trees along fence rows that are typical of most rural areas. See plant list for selection.  Homestead Trees: Trees around historic agricultural structures. See plant list for selection.
<b>Lighting</b>	N/A	N/A	Activity Lighting: Lighting incorporated into activity structures and tree down lighting.
<b>Safety</b>	Emergency call box: 1 box per 1,000 ft.	Emergency call box: 1 box per 1,000 ft. Guard Rails: At Vista Points where necessary.	Activity staff and procedures: Personnel monitoring for pedestrian safety.
<b>Information Systems</b>	Interpretative Signage: signage for various plant types, vegetative communities, wildlife habitats, and conservation awareness that are painted on metal and color coded according to message type.	Interpretative Signage: signage for various plant types, vegetative communities, wildlife habitats, and conservation awareness that are painted on metal and color coded according to message type.	Interpretative Signage: signage for various plant types, vegetative communities, wildlife habitats, and conservation awareness that are painted on metal and color coded according to message type.
<b>Furniture</b>	Pedestrian Benches and trash receptacles: located at vista points	Pedestrian Benches and trash receptacles: Located at vista points.	N/A

<b>8. Public facilities</b>			
<b>Design Element</b>	<b>Police</b>	<b>Fire</b>	<b>Municipal</b>
<b>Building Identity</b>	Masonry veneer, pitched roof, strong definition of entry and public access pathway. Deep set Utility Doors. Building lighting. Continuity with public image identity	Masonry veneer, pitched roof, strong definition of entry and public access pathway. Deep set Utility Doors. Building lighting. Continuity with public image identity	Masonry veneer, pitched roof, strong definition of entry and public access pathway. Deep set Utility Doors. Rural stylistic references.  Building lighting. Continuity with public image identity
<b>Street Recognition</b>	Rumble Strip Paving: Stone pavers making a rumble strip across street in front of Police Stations.  Premise awareness icon: A location monument that is recognizable as a police monument, located along the parkway and within the road ROW, on either side of the rumble strip.	Rumble Strip Paving: Stone pavers making a rumble strip across street in front of Fire Stations.  Premise awareness icon: A location monument that is recognizable as a police monument, located along the parkway and within the road ROW, on either side of the rumble strip. Monuments are equipped with a traffic signal to stop traffic at times of emergency response.	Lateral expansion of parkway to create entry plaza: Generous parkway width at the location of City hall that permits public gathering. A public plaza may substitute for such space when it is connected to the street.
<b>Lighting</b>	Street side and entry walk and ground plane illumination: Provided by building up lights and landscape down/ up lighting.	Street side and entry walk and ground plane illumination: Provided by building up lights and landscape down/ up lighting.	Street side and entry walk and ground plane illumination: Provided by building up lights and landscape down/ up lighting. Where the public space lacks landscape, pedestrian lighting will provide ground plane illumination.
<b>Signage</b>	Standard Station Identification: Engraved or cast into building material.	Standard Station Identification: Engraved or cast into building material.	Monument Identification: Monument sign at street and/ or entry drive to Town Hall that identifies structure. Sign shall have a stone base and pin mounted, backlit letters.  Building mounted identification: Engraved or cast into building material.
<b>Safety</b>	N/A	Emergency exit traffic signal: Mounted in identification pylon	N/A
<b>Information Systems</b>	N/A	N/A	Electronic public notifications: Public reader board that communicates upcoming events, public notices, public service information.
<b>Special Features</b>	Public Meeting room: Available to neighborhood and other public groups.	Public meeting room: Available to neighborhood and other public groups.	Public gathering space: available for civic events, public demonstration, and organized municipal activities.

<b>9. Site Open Space</b>			
<b>Design Element</b>	<b>Parking Lots</b>	<b>Site Landscaping</b>	<b>Buffers</b>
<b>Spatial proportion</b>	Landscape areas should not be less than 10% of the parking apron surface in Regional Commercial, Community Commercial 1, and Town Core land Use Areas. Other Land Use areas where commercial use is permitted, parking lot landscape areas should not be less than 15% of the parking apron surface area. However, Trees placed in Parking lots should be placed so that any parking space is no further than 10 spaces from a tree. Parking lot trees not in landscape areas may be located in tree grates in the Regional Commercial and Community Commercial 1 Land Use Zones. Recommendation does not apply to parking structures.	At least 10% of any site should be in landscaped and/ or open space in Regional Commercial, Community Commercial 1, and Town Core Land Use Districts. Other Land Use areas where commercial use is permitted, the recommended minimum landscape area is 15%	Where commercial use abuts a single family residential use a minimum 20 ft. landscape buffer should be incorporated. Where a commercial use abuts an open space, at least 50% of the site's 10% minimum landscape area should abut the open space, thereby expanding the open space areas.
<b>Landscaping</b>	Trees: Planted in landscape islands and tree grates. Parking lot trees should be located so that no parking space is further from a tree than 10 parking spaces.  Ornamental planting and ground cover: Flowering native shrubs and ground covers as specified in the recommended plant list.	Trees: Natural Drifts of trees including both canopy and understory planting. Purpose to reknit the natural plant fabric.  Grasses: low maintenance Native pasture grasses. Ornamental planting: Flowering native shrubs at horizontal deflectors.	Trees: Natural Drifts of trees including both canopy and understory planting. Purpose to reknit the natural plant fabric.  Grasses: low maintenance Native pasture grasses. Ornamental planting: Flowering native shrubs at horizontal deflectors.
<b>Lighting</b>	N/A	Trees: Tree lighting within 100 ft. of structure only	N/A
<b>Signage</b>	Standard Station Identification: Engraved or cast into building material.	Standard Station Identification: Engraved or cast into building material.	Monument Identification: Monument sign at street and/ or entry drive to Town Hall that identifies structure. Sign shall have a stone base and pin mounted, backlit letters.  Building mounted identification: Engraved or cast into building material.

9. Site Open Space			
Design Element	Parking Lots	Site Landscaping	Buffers
<b>Furniture</b>	N/A	Building Entries and Activity Areas: provide one or more benches and trash receptacle.	N/A
<b>Built Amenities/ Art</b>	N/A	Building Entries, building approaches, and roadway interfaces: Seize these landscape area opportunities for placement of publically visible art.	Strategic placement of site specific art in conjunction with artist. Suggest cooperative Town/Private property owner program to initiate such are installations.
<b>Banners/ Flags</b>	Banners should be placed on parking lot lighting, not in parking lot landscape areas.	Corporate, State and national Flags encourage at all corporate office structures. In urbanized areas, such flags could be placed in close proximity to the street, creating an additional streetscape element. In campus settings, flags could be places in a flag court, close to the entry.	N/A
<b>Signage</b>	Directional, cautionary, and parking area location signage only.	Premise identification monument signs with no additional advertising.	N/A
<b>Paving</b>	Tree grates: Located in pave areas  Landscape Islands: no paving	N/A	N/A

## LISTS, SECTIONS, AND PALETTES

Various Design Initiatives explained above references information presented in list, section, or palette form in the following text. This material is included in the Town Design Structure Plan in order to further expand the action descriptions provided above. The particular lists, sections, and palettes include:

- **Plant List:** This is a listing of the plant selections available for use in various landscape actions described above. The plant list includes recommended canopy trees, ornamental trees, understory plants, shrubs, grasses, and other ornamentals.
- **Street Sections:** Street sections illustrate typical section designs for Pastoral Collectors, Town Arterials, and Regional Arterials.
- **Lighting and Signal Palette:** These show a pictorial sampling of street light fixtures, street light standards, banner arms, traffic signal standards, traffic signal arms/ fixture, pedestrian light standards, and pedestrian light fixtures suitable for Westlake lighting and signalization initiatives.
- **Information Systems Figure:** This figure shows a pictorial sampling of recommended kiosks for Westlake.
- **Furniture Palette:** This palette shows a pictorial sampling of recommended pedestrian furniture, including benches, trash receptacles, water fountains, and bike racks that are recommended for Westlake.
- **Bridges Figure:** This shows a pictorial sampling of bridge types that are recommended for Westlake.

**Recommended Plant List:**

Large Canopy Trees (minimum 4" cal. Installation DBH)		Pastoral Connector	Town Arterial	Regional Arterial	Trails	Regional Edge	Neighborhood Edge	Commercial Edge	Open Space Edge	Gathering Spaces	Recreational parks	Conservation Spaces and Landforms	Rural heritage
Common Name	Botanical Name												
Drummond Red Maple	Acer Rubrum drummondii	X						X					
October Glory Maple	Acer rubrum 'October Glory'	X			X		X	X		X			X
Caddo Maple	Acer saccharum 'Caddo'	X											
River Birch	Betula Nigra	X						X					
Pecan	Carya illinoensis	X					X		X		X	X	X
Sweet Gum	Liquidambar styraciflua	X			X		X						X
Magnolia	Magnolia grandiflora	X					X						X
Black Gum	Nyssa sylvatica	X				X	X						X
Chinese Pistachio	Pistacia chinensis	X											X
White Oak	Quercus Alba	X				X							X
Bur Oak	Quercus macrocarpa	X			X	X			X			X	X
Swamp Chestnut Oak	Quercus michauxii	X				X							X
Pin Oak	Quercus palustris	X				X							X
Willow Oak	Quercus Phellos	X			X	X	X		X				X
Live Oak	Quercus virginiana			X	X	X	X		X	X	X	X	X
Bald Cypress	Taxodium distichum		X							X			
Cedar Elm	Ulmus crassifolia			X		X	X		X	X	X	X	X
Lacebark Elm	Ulmus parvifolia sepervirens									X			
Slash Pine *	Pinus elliotii	X	X			X	X		X			X	

\* and/or the same pine species currently growing along Solana Blvd. at the Village Circle intersection

Ornamental Trees (minimum 6' installation height)		Pastoral Connector	Town Arterial	Regional Arterial	Trails	Regional Edge	Neighborhood Edge	Commercial Edge	Open Space Edge	Gathering Spaces	Recreational parks	Conservation Spaces and Landforms	Rural heritage
Common Name	Botanical Name												
Fringe Tree	<i>Chionathus virginica</i>												
Flowering Dogwood	<i>Cornus Florida</i>	X			X	X						X	X
Titi	<i>Cyrilla racemiflora</i>												
Possumhaw	<i>Ilex decidua</i>												
Crape Myrtle	<i>Lagerstroemia sp.</i>			X				X		X	X		
Wax Myrtle	<i>Myrica cerifera</i>		X			X	X			X	X		X
Mexican Plum	<i>Prunus mexicana</i>	X			X	X	X		X	X			X
Mexican Buckeye	<i>Ungnadia speciosa</i>							X					
Vitex	<i>Vitex agenus-castus</i>												

Evergreen Trees (minimum 6' installation height)		Pastoral Connector	Town Arterial	Regional Arterial	Trails	Regional Edge	Neighborhood Edge	Commercial Edge	Open Space Edge	Gathering Spaces	Recreational parks	Conservation Spaces and Landforms	Rural heritage
Common Name	Botanical Name												
Yaupon Holly	<i>Ilex vomitoria</i>			X				X		X	X		
Nellie R. Stevens Holly	<i>Ilex X 'Nellie R. Stevens'</i>			X				X		X	X		
Foster Holly	<i>Ilex X attenuata 'Foster'</i>			X			X	X		X	X		
Eastern Red Cedar	<i>Juniperus virginiana</i>	X					X		X		X		X
Little Gem Magnolia	<i>Magnolia grandiflora 'Little Gem'</i>					X	X			X	X		X
Wax Myrtle	<i>Myrica cerifera</i>	X	X			X	X		X				X
Red Bay	<i>Persea barbonia</i>		X										X
Indian Cherry	<i>Rhamnus caroliniana</i>		X			X	X		X				X
Mexican Fan Palm	<i>Washingtonia robusta</i>												X

Shrubs (minimum 5 gal. 24" o.c. Installation)		Pastoral Connector	Town Arterial	Regional Arterial	Trails	Regional Edge	Neighborhood Edge	Commercial Edge	Open Space Edge	Gathering Spaces	Recreational parks	Conservation Spaces and Landforms	Rural heritage
Common Name	Botanical Name												
American Beautyberry	<i>Callicarpa americana</i>	X			X		X		X				X
Eleagnus	<i>Elaeagnus macrophylla</i> 'Ebbenji'						X	X			X		X
Coral Bean	<i>Erythrina herbacea</i>				X		X	X	X	X			X
Forsythia	<i>Forsythia intermedia</i>	X			X	X	X	X	X				X
Red Yucca	<i>Hesperaloe parviflora</i>		X		X	X	X	X	X	X	X	X	X
Oakleaf Hydrangea	<i>Hydrangea quercifolia</i>						X	X					
Holly var.	<i>Ilex spp.</i>						X	X					X
Dwf. Yaupon	<i>Ilex vomitoria 'nana'</i>							X					X
Virginia Sweetspire	<i>Itea virginica</i>	X				X	X		X		X		X
Juniper var.	<i>Juniperus var.</i>	X			X	X	X		X				X
Manzanita	<i>Malphigia glabra</i>	X	X		X	X	X		X			X	X
Miscanthus	<i>Miscanthus spp.</i>	X			X	X			X				
Muhlenbergia	<i>Muhlenbergia spp.</i>	X	X			X	X		X	X	X	X	X
Dwarf Wax Myrtle	<i>Myrica cerifera</i>			X				X					
Nandina	<i>Nandina domestica</i>			X				X					
Switchgrass	<i>Panicum virgatum</i>	X	X	X	X	X	X	X	X				X
Needle Palm	<i>Rhapidophyllum hystrix</i>							X					
Indian Hawthorn	<i>Rhapiolepis indica</i>						X	X					
Aromatic Sumac	<i>Rhus aromatica</i>	X			X	X	X		X		X	X	X
Sumac	<i>Rhus glabra</i>	X			X	X	X		X		X	X	X
Spirea var.	<i>Spirea</i>	X					X	X			X		
Anthony Waterer Spirea	<i>Spirea X Bumalda</i> 'Anthony Waterer'	X	X		X	X	X		X		X	X	X
Viburnum	<i>Viburnum spp.</i>	X	X		X	X	X						X

Groundcover (minimum 4" pot 4" o.c. Installation)		Pastoral Connector	Town Arterial	Regional Arterial	Trails	Regional Edge	Neighborhood Edge	Commercial Edge	Open Space Edge	Gathering Spaces	Recreational parks	Conservation Spaces and Landforms	Rural heritage
Common Name	Botanical Name												
Inland Sea Oats	<i>Chasmanthum latifolium</i>	X	X	X	X	X	X		X			X	
Winter Creeper	<i>Euonymus fortunei 'Coloratus'</i>	X					X		X				X
Spider Lilly	<i>Hymenocallis sp.</i>						X						
Trailing Lantana	<i>Lantana sellowiana</i>	X	X		X	X	X	X	X	X	X		X
Agapanthus Africanus	<i>Lily of the Nile</i>							X					X
Liriope var.	<i>Liriope spp.</i>			X				X					X
Ophiopogon	<i>Ophiopogon japonicus</i>			X				X					X
Southern Woodfern	<i>Thelypteris kunthii</i>			X				X					X
Asian Jasmine	<i>Trachelospermum asiaticum</i>			X			X	X					X

**Example Canopy Trees:**

Drummond Red Maple



October Glory Maple



Sweet Gum



Black Gum



White Oak



Burr Oak



Swamp Chestnut Oak



Live Oak



Cedar Elm



Bald Cypress



Slash Pine



**Example Ornamental Trees:**

Redbud



Fringe Tree



Titi



Possumhaw



Mexican Plum



Vitex



**Example Evergreen Trees:**

Japanese Blueberry



Nellie R. Stevens Holly



Foster Holly



Eastern Red Cedar



Wax Myrtle



Red Bay



**Example Shrubs:**

Abelia



American Beautyberry



Coral bean



Red Yucca



Virginia Sweetspire



Juniper Var.



Manzanita



Sumac



Anthony Waterer Spirea



Viburnum



**Example Ground Cover:**

Ardisia



Inland Sea Oats



Winter Creeper



Trailing Lantana



Spider Lilly



**Street Sections:** The following palette illustrates standard sections for the Pastoral Collector, the Town Arterial, and the Regional Arterial. The first image in the palette is a transect that illustrates how the three Street Types differ in terms of:

**1. Natural to Urban Organization of the Landscape:** The pastoral areas are identified by a plant type and planting pattern that has the appearance of a naturally formed, drifted landscape. Here, the view from the road is meant to be the view of Westlake's characteristically beautiful and

undisturbed natural condition. As one approaches the more urbanized areas, the street planting becomes more ordered and lined.

**2. Motorial to Directed Street Alignment:** The rolling topography of Westlake is experienced by gracefull, curvilinear streets with a variable width median. The alignments are truly responsive to the landscape condition. However, as the context is more developed/urbanized, the streets become straighter and transform from parkway into boulevard.

STREET SECTIONS PALETTE	
STREET TYPE	STREET SECTION
Street Type Transect	
Pastoral Collector	

## STREET SECTIONS PALETTE

STREET TYPE	STREET SECTION
Town Arterial	
Regional Arterial	

**Lighting and Signal Palette:** The street lighting palette builds upon the lighting already being used along Solana Boulevard (the Town Arterial) and Westlake Parkway (the Regional Arterial).

STREET LIGHTING AND SIGNAL PALETTE	
STREET TYPE	STANDARD/ FIXTURE/ HARDWARE
Pastoral Collector	 <p>Pools of light, not continuous illumination. Rural Coop Lighting. A pole mounted light such as the following by Sternberg Lighting with single arm, mounted to a simple square pole. This is compatible with the Regional Road fixture.</p> 

**STREET LIGHTING AND SIGNAL PALETTE**

**STREET TYPE**

**STANDARD/ FIXTURE/ HARDWARE**

Town Arterial



Building upon the fixtures already installed along Solana Boulevard. Possibly a close derivation such as the Villa by Sternberg Lighting or others by BEGA.



**STREET LIGHTING AND SIGNAL PALETTE**

**STREET TYPE**

**STANDARD/ FIXTURE/ HARDWARE**

Regional Arterial



Building upon the fixtures already installed along Westlake Parkway. Possibly a close derivation such as the Gallery 1970 by Sternberg Lighting



Lights should have banner arms such as these by Sternberg Lighting



**Pedestrian Furniture and Information Systems:** Pedestrian furniture should be simple, sculptural, and not overly

reminiscent of an historical period. Like the commercial architecture of the Town, the street furniture should be elegant in its simplicity.

STREET/PLAZA FURNITURE AND INFORMATION SYSTEMS PALETTE	
TYPE	SELECTION AND CHARACTERISTICS
Benches	 <p style="text-align: center;">backless                      backed                      backed with arms</p>
	 
	 <p>A simple slatted bench which is both timeless and elegant such as the Parc Vue by Landscape Forms or the bottom image from Tolar Industries.</p>
Kiosks	  <p>A simple 4 sided or round kiosk advertising structure such as these provided by Matrix Media National and Outdoor Media.</p>

**STREET/PLAZA FURNITURE AND INFORMATION SYSTEMS PALETTE**

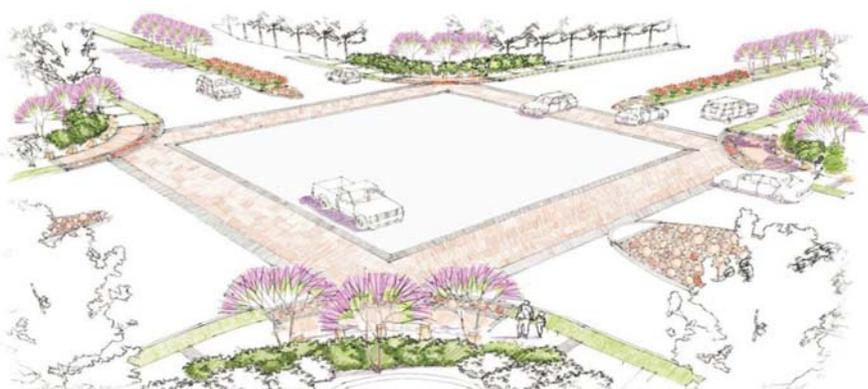
TYPE	SELECTION AND CHARACTERISTICS
<p>Trash Receptacle</p>	  <p>A classic wire mesh receptacle such as the Parc Vue Litter Receptacle or the ribbed one by Tolar Industries.</p>
<p>Bike Racks</p>	 <p>A simple sculptural shape such as the Pi Bike Rack from Landscape Forms</p>
<p>Bollards</p>	 <p>A simple shape that can also provide pedestrian lighting such as the Annapolis by Landscape forms or the 7740, 7741, and 8554 by BEGA</p>

**Bridges:** Future bridges should continue the basic bridge types that exists in Westlake today.

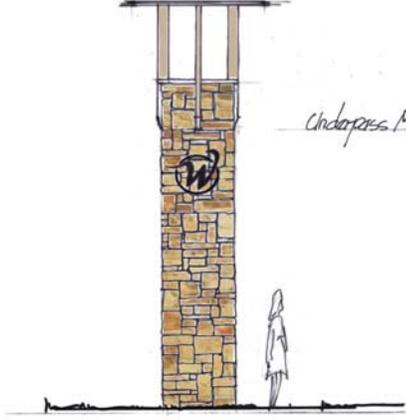
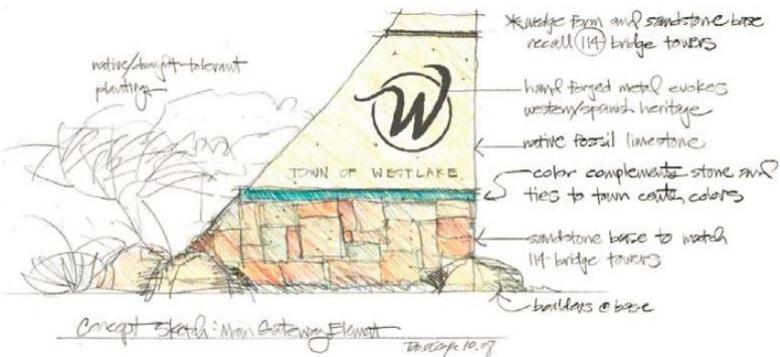
<b>BRIDGE PALETTE</b>	
<b>BRIDGE TYPE</b>	<b>BRIDGE APPEARANCE</b>
<p>All Highway 114 and 170 overpasses</p>	 <p>Hillwood has set the theme for treatment of Highway 114 and Highway 170 Overpasses</p>
<p>All bridges within the Town</p>	  <p>The Town has already set the theme for general bridges.</p>

**Other Visual Themes Palette:** The following palette presents a set of other visual themes for monuments, signage, and intersections. These visual themes seek to employ a unified use of material and forms

to create an overarching visual character that is uniquely Westlake. Much of this section builds on work done for the Town of Westlake by Townscape.

OTHER VISUAL THEMES PALETTE	
TYPE	THEMATIC APPEARANCE
	 <p>When a Town Roadway intersects a Town Roadway</p>
	 <p>When a Town Roadway intersects a Regional Roadway</p>
	 <p>When a Town Roadway intersects a Pastoral Roadway</p>

**OTHER VISUAL THEMES PALETTE**

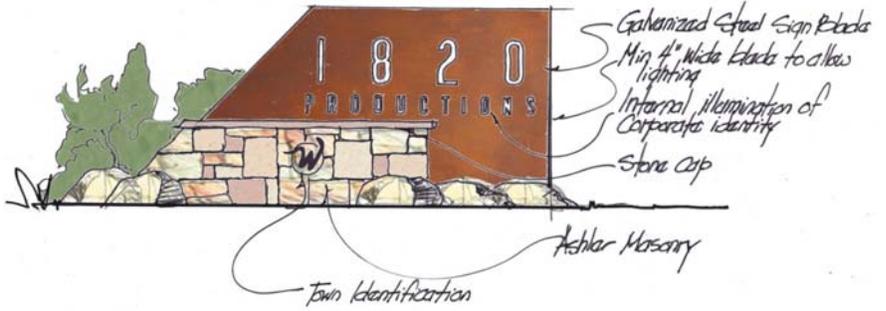
TYPE	THEMATIC APPEARANCE
<p>Overpass Monuments</p>	 <p>Hillwood has already set the theme for overpass monuments.</p>
<p>Underpass Monuments</p>	 <p>Continue the vernacular of stone and simple forms that remember the forms at Solana</p>
<p>Southern Entry Monuments</p>	 <p>Continue the vernacular of stone as suggested by Townscape in this image from their Streetscape Plan</p>

**OTHER VISUAL THEMES PALETTE**

**TYPE**

**THEMATIC APPEARANCE**

Premise Signage

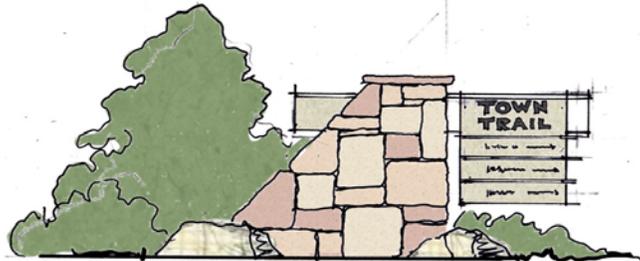


Continue the vernacular of stone and simple forms that remembers the themes already in place

Trail Heads



*Trail Hub Monument*



*Trail Intersection Monument*

Continue the vernacular of stone and simple forms that remembers the themes already in place

Way Finding



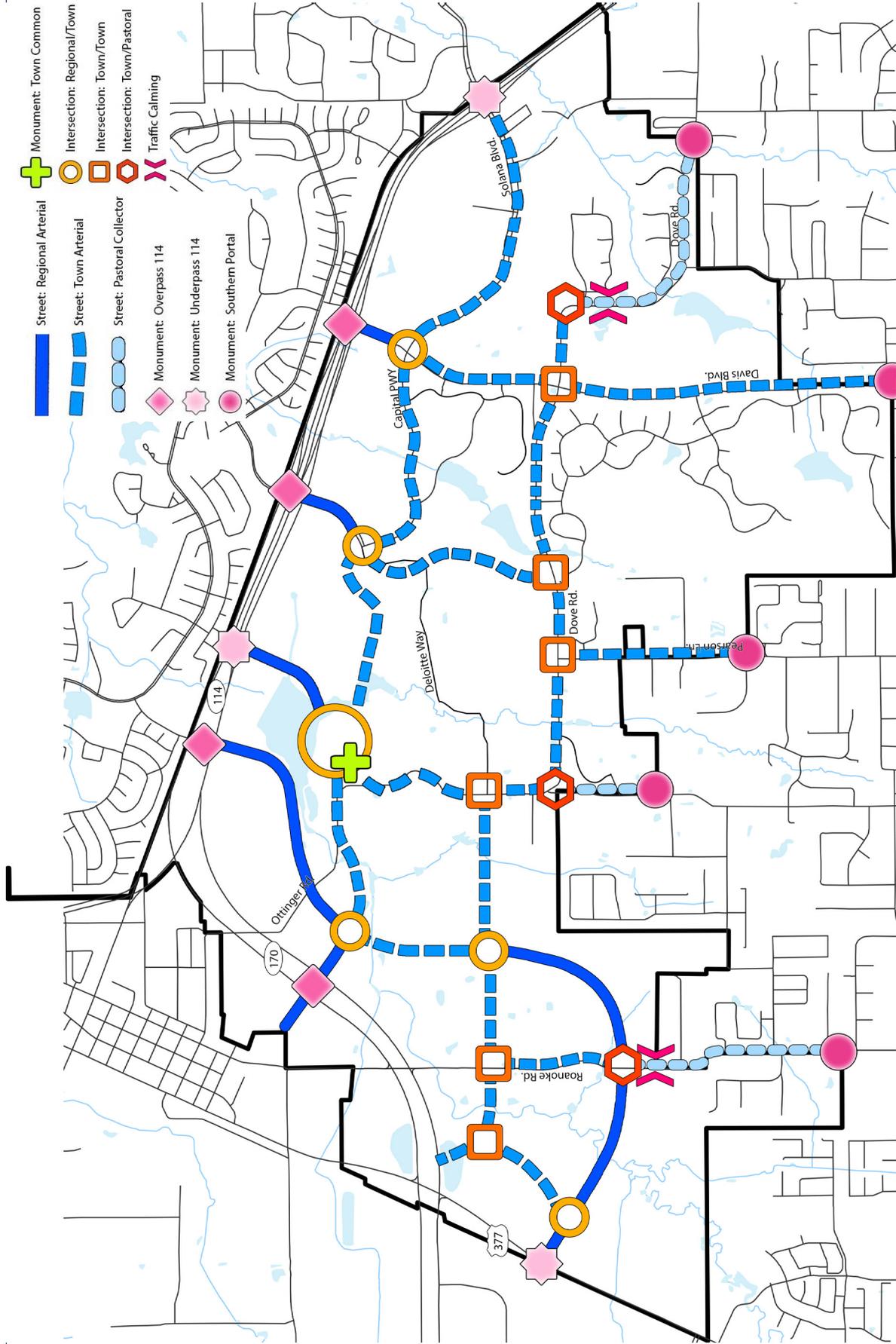
A sign concept developed by Townscape

## TOWN DESIGN STRUCTURE PLAN

The following Town Design Structure Plan illustrates the various Urban Design Initiatives (intersections, portals, monumentation, etc.), described above, as they are arrayed within the fabric of Westlake. The essence of this Town Design Structure Plan is to visually pull together the various landmark and thematic features installed by private (such as the towers at Solana) and public (such as the bridges along Dove Road) parties and create a unified identity for the Town. Continued fragmented efforts will ultimately make it impossible to communicate a single coherent identity. It is important to see that the following compositional features of cognitive structure are established in this Plan Element:

1. Creation of a major town focal point within the heart of its commercial areas that functions as an organic Town Common.
2. Visual separation of roadway type with the Regional and Pastoral Roadway Types emanating out from the Town System, making the Town System the hub of movement within Westlake. This implements citizens' desire to have a town hub in Westlake.
3. Demarcation of the interface between Town System and Regional System with special intersection design (vertical and horizontal design).
4. Demarcation of the interface between the Town System and the Pastoral System with special intersection design (vertical and horizontal design).
5. Using the present visual differences between over pass and underpass monumentation in Westlake, create a pattern of monumentation types where all over passes establish a visual distinction that builds off the present appearance of Westlake Parkway and all under passes establish a visual distinction that builds off the present appearance of Solana Boulevard.
6. Demarcation of Westlake's southern edge (important to maintenance of market distinction) with a distinctive roadway portal monument.
7. Demarcation of the entry to Westlake's pastoral region with horizontal deflection and traffic calming installations (narrowing of the pastoral street at its intersection with the Town Roadways with landscaped "neck-downs" that discourage entry by pass-through traffic flows.

# THE TOWN DESIGN STRUCTURE PLAN



DISCLAIMER: The location of urban design elements, not located within a street right of way and shown on the Town Design Structure Plan, in no way modifies any approved PD Plan, PD Ordinance, or zoning. The location of Urban Design Elements (other than those located within the a street right of way) is to be determined through a cooperative Town/ property owner process which takes place as site plans, requests for amendment of any existing Planned Development Ordinance, and/or requests to transfer commercial square footage from one land use district to another are submitted for Council approval (when the legal mechanism for such transfer has been adopted by the Town of Westlake). See Section D of the Implementation Plan for trigger points and other policy related information.



## **PART THREE: THE PLAN ELEMENTS**

### **SECTION FIVE: THE FACILITIES AND TOWN HALL PLAN**

#### **INTRODUCTION**

Today, Westlake is a Town of slightly over 1,000 people sitting in a mostly undeveloped rural landscape. Given the current context, it is hard to imagine a future in which the population of Westlake approaches that of Highland Park and the intensity of commercial development exceeds that of many larger Texas cities (such as Corpus Christi). As the Town matures from here (the present condition) to there (the built-out condition), it will have to make sure that the emergency service needs of its full-time and day-time residents are adequately addressed. The following Facilities and Town Hall Plan sets out the emergency service needs of the built-out Westlake (full service) and standards for gauging the interim levels of service needed between now and full service.

This Plan also addresses the Town's need for Town Hall space to conduct the functions of governance. Many of the administrative demands to be placed upon the agencies and political officials of Westlake will come from activities related to development. Because the currently approved entitlements allow commercial

property owners to build more than 25 million square feet of non-residential space, it is clear that the commercial component of the Town will require the greatest governmental capacity. Therefore, it is important that this Plan addresses future need for a new Town Hall.

The overall approach to determination of the need for police, fire facilities and Town Hall space considers both the permanent population (7,000 people at build-out) and the day-time population (45,141 people at build-out). The disproportionately greater number of day-time residents makes Westlake more unique than most townships. Therefore, the methodology for determination of facility needs must convert residential and non-demand populations into a single demand measure, which is explained in detail in the following text. The following text also projects the need for Emergency Services (Part A) and the need for Town Hall Space (Part B).

**PART A: EMERGENCY SERVICES**

**Fire Services: Determining the Required Number of Fire Fighters**

Emergency Services includes police officers and fire fighters. Typically, the demand for such services is based on the resident

population, expressed as officers or fire fighters per 1,000 people. For fire fighters, the national average is 1.2 fire fighters per 1,000 people (for a town of less than 10,000). For police officers, the national average is 2.2 officers per 1,000 people. At present, Westlake exceeds the national average with regard to fire fighters with nine fire fighters serving a population of 1,030. Figure 133 summarizes the current level of fire fighting service in Westlake. Note that Westlake exceeds the national median by 2.77 fire fighters per 1,000 population.

Build-out projections for Westlake put the population at approximately 7,000 people. Current entitlements permit a total non-residential square footage of approximately 25 million square feet. However, it is not likely that all the entitlements will be built. Therefore, the build-out analysis assumes that approximately 72% of the total entitlement will be built, reducing the non-residential square footage to 18 million square feet. That amount of development will host a day-time population of approximately 45,141 people. Figure 134 illustrates the anticipated build-out square footage and the day-time population it will accommodate.

<b>CURRENT FIRE SERVICE</b>	
Westlake Permanent Resident Population	1,030
Westlake Non-residential square Footage to Resident Population Conversion (see explanation below)	1,241
Westlake Full-Time Firefighters	9
Westlake Firefighters per 1,000 residents	3.97
National Median (Pop.> 10,000 res.), Firefighters per 1,000 residents	1.2
Westlake service over national median	2.77

Figure 133: Current Fire Fighting Service in Westlake

<b>DAYTIME SERVICE POPULATION</b>			
<b>Land Use</b>	<b>Building Area (SF)</b>	<b>SF per Employee</b>	<b>Total Population Added</b>
Hotel	2,120,000	1,000	2,120
Retail	3,127,368	600	5,212
Office	10,454,606	330	31,681
Office/Education: Campus	699,686	2,100	333
Office/Education: Office	699,686	330	2,120
Office/Industrial: TechFlex	730,501	500	1,461
Office/Industrial: Office	730,501	330	2,214
<b>TOTALS</b>	<b>17,862,622</b>		<b>45,141</b>

Figure 134: Daytime Service Population

<b>FIRE SERVICE AT BUILD-OUT (Residential Equivalent Method)</b>	
Commercial Square Footage at Build-Out	18,000,000
Westlake Square Feet per Resident, Single-Family Households	1,611
Commercial Equivalent Population at Singl- Family Household Conversion Rate	11,174
National Median (Pop.>25,000 res.), Firemen per 1,000 residents	1.25
Firefighters Needed at National Ratio	14
Westlake Build-out Resident Population	7,000
National Median (Pop.> 25,000 res.), Firemen per 1,000 residents	1.25
Firefighters Needed at National Ratio (less than current ratio of 9/ 1,000 pop.)	9
<b>Total Firefighters Needed at Build-out (using current 9 instead of 7)</b>	<b>23</b>

Figure 135: Fire Service at Build-Out (Residential Equivalent Method)

In order to translate the day-time population into an equivalent permanent population, it is necessary to create a residential equivalency. The residential equivalency is the conversion of the non-residential square footage into a permanent resident population so that the number of fire fighters per 1,000 permanent population can be determined. The concept behind this conversion is the relationship of fire hazard potential to building square footage. As the amount of square footage within a town or city increases, its exposure to fire hazard also increases. Therefore, both residential and non-residential square footage needs to be expressed as “resident square feet” (the average square feet of residential use per permanent resident).

The average residential square feet per resident in Westlake today is 1,611 square feet. Therefore, dividing the projected non-residential square footage by 1,611 converts the non-residential square footage into a residential population equivalent for the purposes of projecting the number of fire fighters needed at build-out. The 18 million square feet of non-residential square footage projected for Westlake converts to a residential equivalent population of 11,174 people, making the total population to be served by fire fighters 18,174 people. At the national service median of 1.2 fire fighters/ 1,000 population, Westlake will need 23 fire fighters. Figure 135 summarizes this calculation.

<b>FIRE SERVICE AT BUILD-OUT (ADDISON COMPARABLE METHOD)</b>	
Commercial Square Footage 2013	28,600,000
Resident Population, 2013	15,179
Total Firemen, 2013	53
National Median (Pop.>25,000 res.), Firemen per 1,000 residents	1.25
Addison Firefighters Needed at National Ratio for Residential Population	19
Firemen Serving Non-residential Need	34
Non-residential Square Footage Per Fireman	841,176
Westlake Firefighters at National Ratio for Residential Build-out	9
Westlake Firefighters at Addison Commercial Ratio, for Commercial Build-out	21
<b>Total Firefighters Needed at Build-Out</b>	<b>30</b>

Figure 136: Fire Service at Build-Out (Addison Comparable Method)

To verify the results of the Residential Equivalent Method discussed above, a comparable city offers such verification. Like Westlake, Addison, Texas is a city with an unusually large amount of non-residential square footage relative to permanent resident population. Figure 136 summarizes the Addison level of fire fighters per 1,000 population.

Based on the Addison analysis, Westlake will need 30 total fire fighters, and based on the Residential Equivalent Analysis, Westlake will need 23 fire fighters. Therefore, the right number for Westlake would appear to be **27 fire fighters** at build-out (non-residential build-out at 72% of total entitlement).

### **Determining The Fire Station Locations**

This number of fire fighters could comprise three shifts of nine (not counting two lieutenants and a Battalion Chief), staffing three companies, working 24 hours on and 48 hours off. This would staff two stations: One station located within a five minute response time of the residential areas of Westlake and another station located within a five minute response time of the non-residential areas of Westlake. The sequence expressed in Figures 137, 138 and 139 show the locations of recommended fire station locations as Westlake builds out.

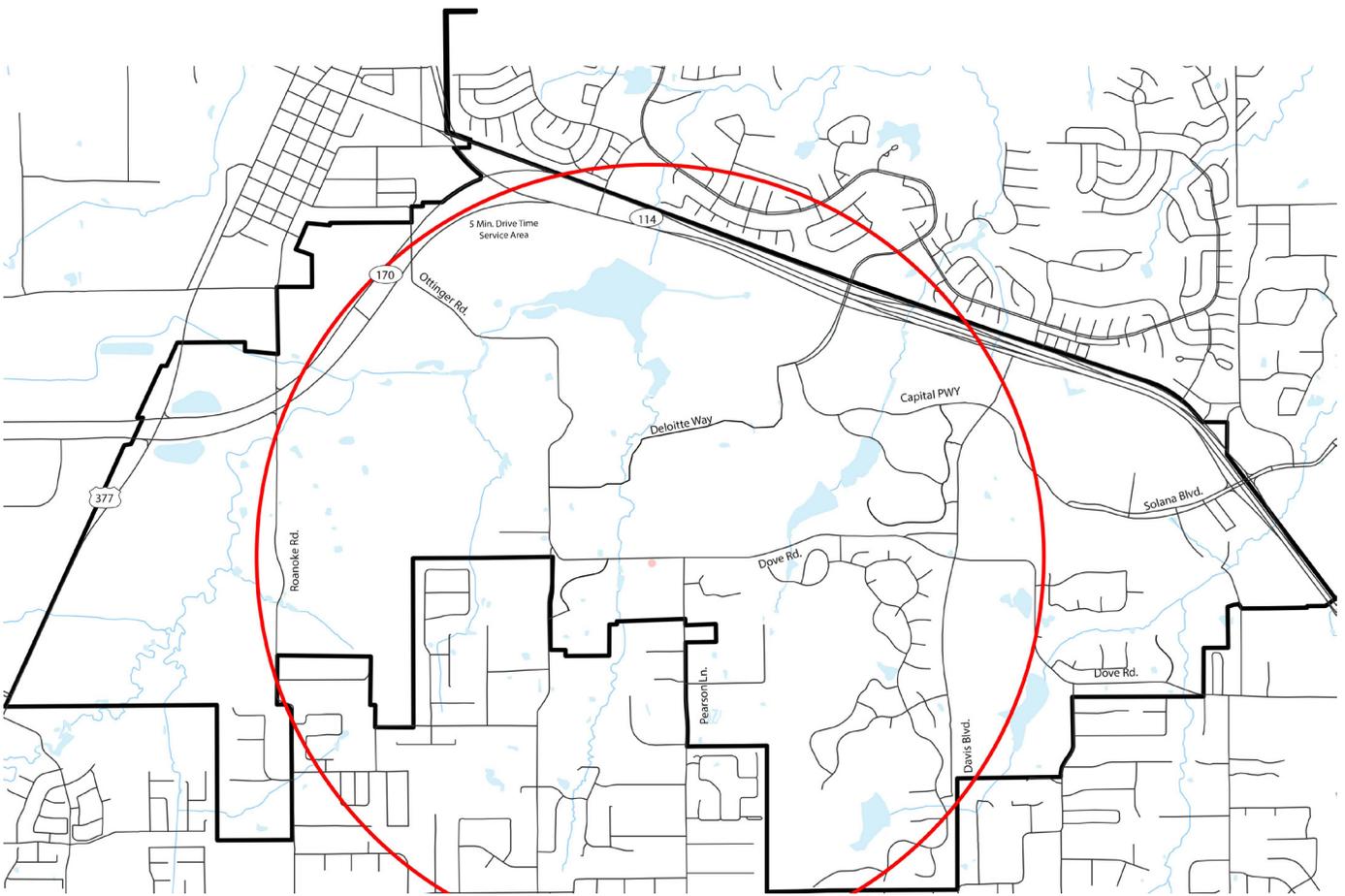


Figure 137: Existing Facility

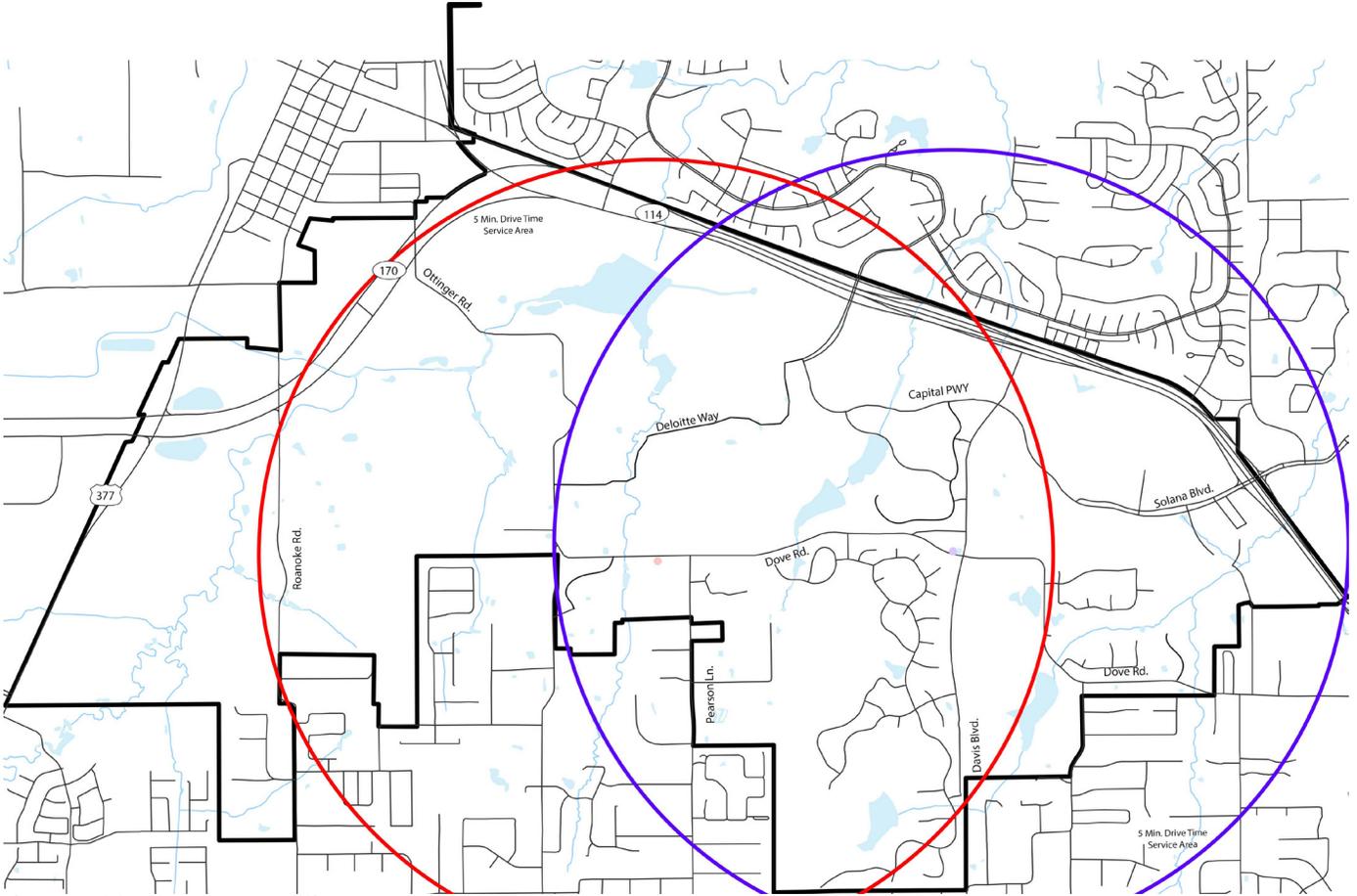


Figure 138: Phase 1 Facilities

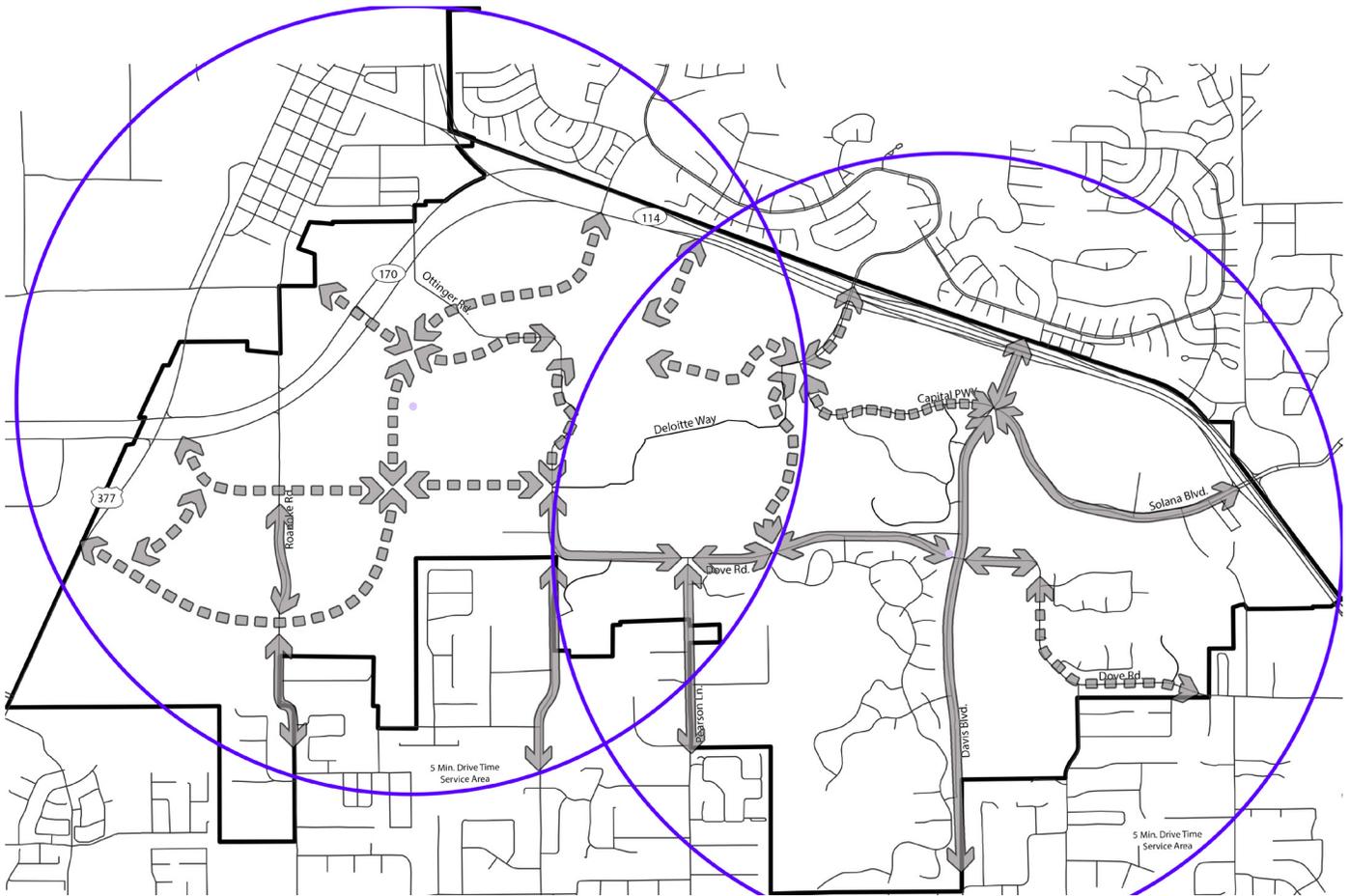


Figure 139: Phase 2 Facilities

PUBLIC SAFETY FACILITIES PHASING			
Station	Location	Station Type	Phasing
Fire Station - Existing	Dove Road	Fire/EMS	Phase 1
Station A	Inner Loop (East)	Police/Fire/EMS: Residential Response	Phase 1, Phase 2
Station B	Inner Loop (West)	Fire/EMS Commercial Response	Phase 2

Figure 140: Public Safety Facilities Phasing

Each of the circles shown in Figures 137, 138 and 139 represents a five minute drive-time service area. Therefore, stations located as shown Figure should afford the future Westlake fire service within a five minute response time if the thoroughfare system as proposed in the Thoroughfare Plan is built at the time of the station location and that the thoroughfare system is functioning below capacity. The station located near Davis Blvd. and Dove Rd. would be the Residential Emergency

Response and the station located near SH 170 would be the Commercial Emergency Response. Figure 140 calls out the phasing and the function of each proposed station.

### Determining the Number of Police Officers

At present, Westlake acquires police service from Keller and has a Town Marshall. However, for Westlake to be competitive and assure future residents (permanent residents and day-time

<b>CURRENT POLICE SERVICE</b>	
Westlake Population	1,000
Keller Population	41,000
Current Total Police Service Population	42,000
Keller Law Enforcement Employees	82
Keller Law Enforcement Employees per 1,000 residents	2
National Average Law Enforcement Employees per 1,000 residents	2.2

Figure 141: Current Police Service in Westlake

<b>POLICE SERVICE AT BUILD-OUT</b>	
Westlake Additional Daytime Population	45,121
60% Population Reduction Due to Private Commercial Security	18,048
Current Keller Law Enforcement Employees per 1,000 residents	2
Law Enforcement Employees Needed at Current Ratio	36
Westlake Build-Out Resident Population	7,000
National Average Law Enforcement Employees per 1,000 residents	2.2
Law Enforcement Employees Needed at National Ratio	15
<b>Total Law Enforcement Employees Needed at Build-out</b>	<b>51</b>

Figure 142: Police Service at Build-Out

population), Westlake must consider developing its own police force. The first step in planning for such a force is to determine the number of police officers needed to serve the built-out Town. Figure 141 illustrates the current level of police service.

Note that dependence upon Keller for police service occurs in a situation where Keller is staffed at a level slightly below the national average (2.2 police per 1,000 population). This presents some risk for Westlake and argues for the creation of Westlake's own police force. Figure 142 presents a calculation of the police officers needed to staff Westlake at build-out (build-out at 18 million square feet of non-residential use and 7,000 residents).

Note that the number of police required to serve Westlake at build-out to a level commensurate with the national averages is **51 law enforcement employees**. This projection assumes a significant discount

because of the strong likelihood of private security. It is important that Westlake promote the employment of private security in the non-residential areas.

It is recommended in this Plan that three options for police facilities be considered as follows:

**Option A:** Make the two fire stations combined police and fire facilities. Again, one facility would primarily serve the commercial areas and the other would serve the residential areas.

**Option B:** Make the fire station facilities also a sub-station for a component of the police department. The primary police facility is located in the Town Hall.

**Option C:** Make the existing fire station a central police facility with sub-stations located at the proposed fire station locations.

*Town of Highland Park Fiscal Year 2014 Combined Budget*

ACTIVITY MEASURES	FY 2012 Actual	FY 2013 Budget	FY 2013 Projected	FY 2014 Budget
<b>Call Responses</b>				
Police	10,159	11,000	10,400	11,000
Fire	778	850	750	850
Emergency Medical	382	400	400	400
<b>Arrest</b>				
Felony	19	30	20	30
Misdemeanor	337	900	200	900
<b>Other Activity</b>				
Patrol Miles Driven	256,393	275,000	287,500	275,000
Fire Inspections	664	700	700	700
Major Crimes Reported	227	250	200	250
Property Recovery (%)	15	40	10	40
<b>Response Times (minutes)</b>				
Police	2.9	2.5	2.9	2.5
Fire	2.3	3.7	2.2	3.7
Emergency Medical	2.5	3.0	2.2	3.0
<b>Public Safety Training Hours</b>				
	21,142	17,000	14,700	17,000
<b>Citation Activity</b>				
Citations Issued	7,899	8,500	9,200	8,500
Violations Cited	9,918	11,000	11,450	11,000
Hazardous Driving Violations	3,046	3,600	2,625	3,600
<b>Traffic Accidents Activity (per incident)</b>				
Non-Injury	91	200	105	200
Injuries	20	40	30	40
Fatalities	0	0	0	0
Total	111	240	135	240
<b>Residential/Commercial Alarm Systems</b>				
Systems Permitted	2,195	2,050	2,180	2,050
Systems Monitored by Dept.	1,212	1,125	1,235	1,200
<b>Alarm Response Activity</b>				
Intrusion	2,195	2,500	2,400	2,500
Fire	390	400	370	400
Medical	13	10	15	10
Total	2,598	2,910	2,785	2,910

Figure 143: Town of Highland Park Fiscal Year 2014 Combined Budget

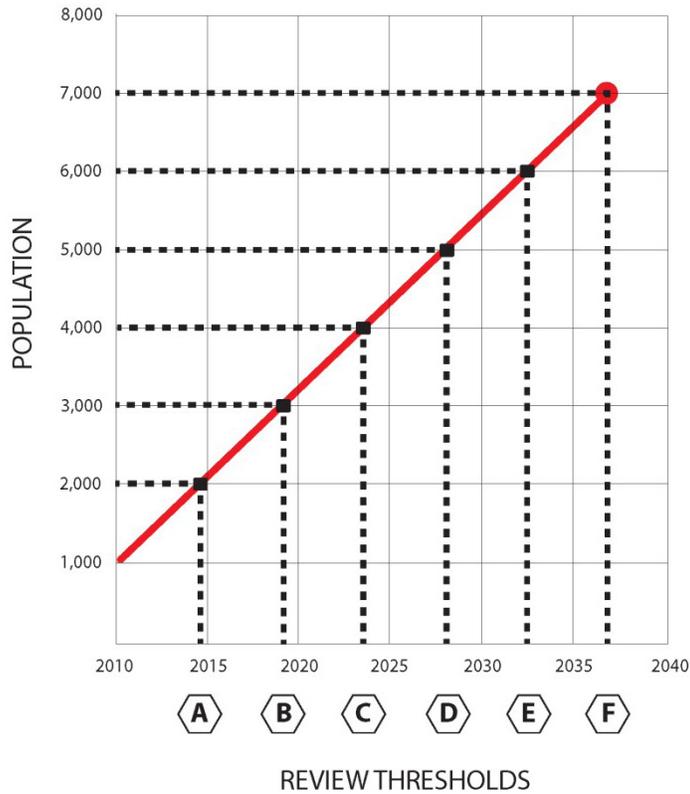
**Serving an Older Population**

Figure 143 illustrates that about half of all calls to the Fire Department are for emergency medical. Therefore, it is important that the residential fire station also have EMS capability.

Staffing	Level	Budget 2010-11	Budget 2011-12	Budget 2012-13	Budget 2013-14
Police Chief	31	1.0	1.0	1.0	1.0
Assistant Police Chief	P6	1.0	1.0	1.0	1.0
Captain	P5	1.0	1.0	1.0	1.0
Lieutenant	P4	3.0	4.0	4.0	4.0
Sergeant	P3	6.0	6.0	6.0	6.0
Supervisor - Detention	13	1.0	1.0	1.0	1.0
Police Services Supervisor	13	0.0	0.0	0.0	1.0
Police Officer**	P2	48.0	47.0	47.0	48.0
Police Administration Technician***	10	1.0	1.0	1.0	0.0
Animal Control Officer****	8	0.0	1.0	1.0	1.5
Department Assistant	8	0.0	0.0	0.0	1.0
Secretary - Department*****	8	1.0	1.0	1.0	0.0
Jailer	7	2.0	3.0	3.0	3.0
Clerk - Police Records	7	2.0	2.0	2.0	2.0
Investigative Specialist	6	1.0	1.0	1.0	1.0
Quartermaster	6	1.0	1.0	1.0	1.0
Intern*****	5	0.0	0.5	0.5	0.5
Jailer - Temporary*	N/C	3.3	2.3	2.3	2.3
<b>TOTAL</b>		<b>72.3</b>	<b>73.8</b>	<b>73.8</b>	<b>75.3</b>

Figure 144: Town of Addison Staffing and 2014 Combined Budget

Figure 144 illustrates police staffing for the Town of Addison, the comparable City. Note that the total police personnel is 75, which compares favorably with the proposed 51 for Westlake (with less population and less non-residential square footage).



**Westlake Facilities Planning  
Population Review Thresholds**

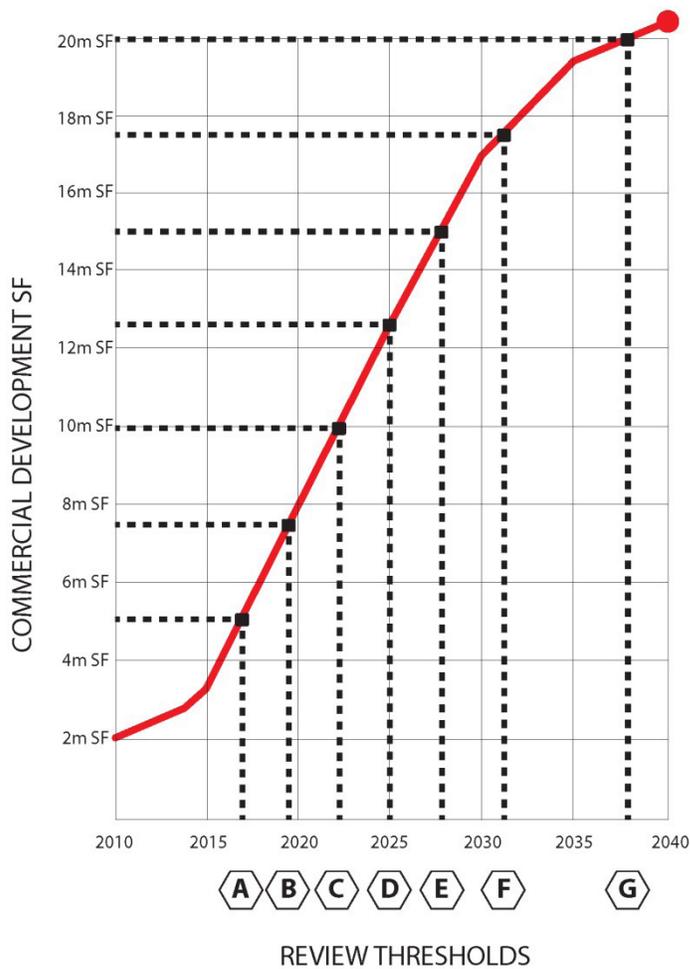
Threshold	Population	Year	Station Phase
A	2,000	2015	1
B	3,000	2019	1
C	4,000	2023	2
D	5,000	2028	2
E	6,000	2032	2
F	7,000	2037	2

Figure 145: Residential Thresholds and Station Phase

**Planning and Review Thresholds for Police and Fire Protection**

It is important that Westlake continue to evaluate its police and fire needs. Therefore, this Plan proposes certain thresholds at which the Town should review the Emergency Service issue to determine

if national standards are being maintained and the level of non-residential build-out that can be projected. Figure 145 identifies residential thresholds in terms of population attainment (assuming growth at a 7% growth rate).



Westlake Facilities Planning Commercial Development Review Thresholds			
Threshold	Commercial SF	Year	Station Phase
A	5,000,000	2017	1
B	7,500,000	2019	1
C	10,000,000	2022	2
D	12,500,000	2025	2
E	15,000,000	2028	2
F	17,500,000	2032	2
G	20,000,000	2038	2

Figure 146: Non-Residential Thresholds and Station Phase

Figure 146 identifies non-residential thresholds which should trigger review of Emergency Services serving the non-residential portion of the Town.

CITY	POPULATION	CITY HALL SF.
Granbury, TX.	7,978	18,000 sf.
Royce City, TX.	9,349	21,000 sf.
Commerce, TX.	8,700	18,000 sf.
Sunnyvale, TX.	5,130	17,300 sf.
Highland Park, TX.	8,500	16,500 sf.
University Park, TX.	23,068	20,000 sf.
Argyle, TX.	3,300	14,000 sf.

Figure 147: Population and Town Hall Size in Comparable Texas Cities

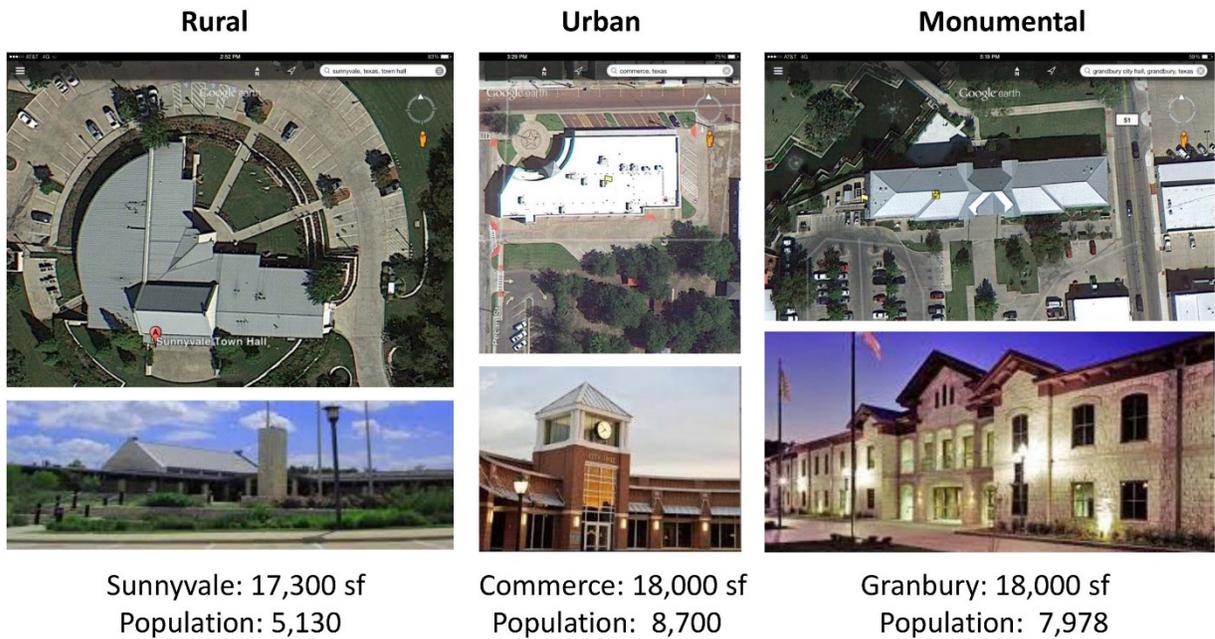


Figure 148: Aerials of the Three Town Hall Image Types

### PART B: THE TOWN HALL

It is extremely important to the image of Westlake, as well as the service to its citizens, that Westlake consider a new Town Hall that is not rented space within a multi-tenant facility. Figure 147 illustrates Town Hall square footage in certain Texas cities, by city. It is apparent from this table that Westlake would need a facility in the range of 18,000 to 20,000 square feet. A key variable among cities of similar population is the amount of “image” space in the facility design.

The facility design generally follows one of three themes:

- The Rural Image where the building form and materials are reminiscent of agricultural structures;

- the Urban Image where the building form and materials are derived from historic town centers, such as a clock tower, belt courses, elaborate cornices, etc.;
- or the Monumental Image where the building form and materials seek to express a new era of the Township in a large scale and formal manner, which is often symmetrical.

Figure 148 shows aerial shots of three local town halls to illustrate the various image types.

The citizen participants in the Public Planning Workshops clearly stated that remembrance of Westlake’s rural heritage was important to them as development



Figure 149: Recommended Town Hall Style 1



Figure 150: Recommended Town Hall Style 2

went forward. Therefore, it is recommended that the Town employ such stylistic references as it considers the design of a new Town Hall. Figures 149 and 150 show the work of well-known Texas architects, which meet the kind of stylistic reference specified above.

The Town Hall Plan illustrates three recommended locations for a new Town Hall Facility:

- Location “A” within the proposed Entrada Development;
- Location “B” near Westlake Academy at the edge of the proposed Town Common;  
or
- Location “C” positioned near the existing fire station facility off of Dove Rd.

The recommended location is “B”, which is a monumental location visible to the Town and the regional traffic flow allowing Westlake to establish its position within a rapidly growing context. A hilltop location (at the edge of the Town Common) places Westlake in the family of great cities that started with such a vision, as described in an excerpt from John Winthrop’s Sermon at the founding of Boston (in the old English):

**John Winthrop’s City Upon a Hill, 1630**

*Now the onely way to avoyde this shipwracke and to provide for our posterity is to followe the Counsell of Micah, to doe Justly, to love mercy, to walke humbly with our God, for this end, wee must be knitt together in this worke as one man, wee must entertaine each other in brotherly Affeccion, wee must be willing to abridge our selves of our superfluities, for the supply of others necessities, wee must uphold a familiar Commerce together in all meekenes, gentlenes, patience and liberality, wee must delight in eache other, make others Condictions our owne rejoyce together, mourne together, labour, and suffer together, allwayes haveing before our eyes our Commission and Community in the worke, our Community as members of the same body, soe shall wee keepe the unitie of the spirit in the bond of peace, the Lord will be our God and delight to dwell among us, as his owne people and will commaund a blessing upon us in all our wayes, soe that wee shall see much more of his wisdome power goodnes and truthe then formerly wee have beene acquainted with, wee shall finde that the God of Israell is among us, when tenn of us shall be able to resist a thousand of our enemies, when hee shall make us a prayse and glory, that men shall say of succeeding plantacions: the lord make it like that of New England: for wee must Consider that wee shall be as a City upon a Hill, the eies of all people are upon us;...*



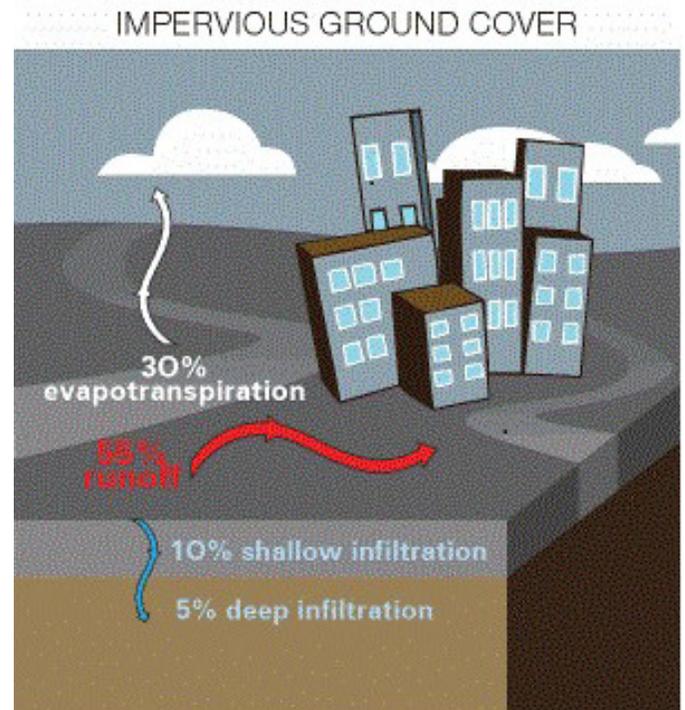
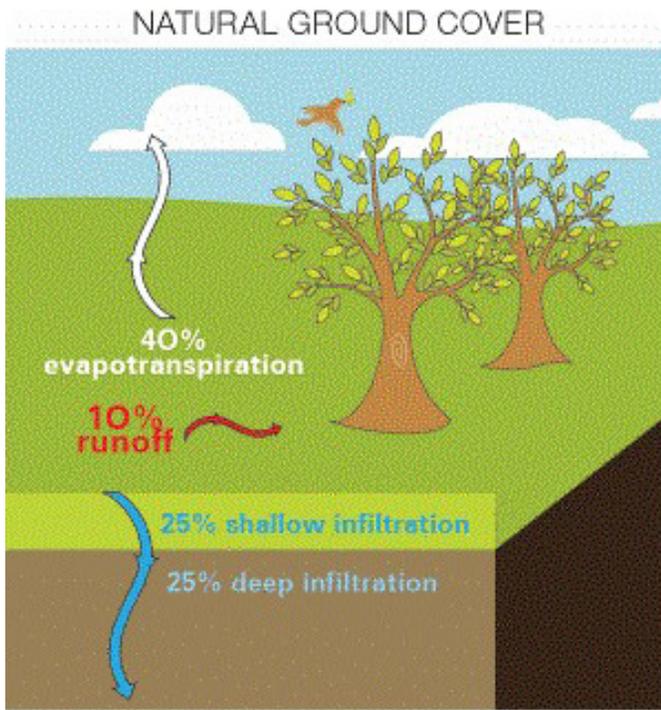


## **PART THREE: THE PLAN ELEMENTS**

### **SECTION SIX: STORM WATER AND WATER CONSERVATION PLAN**

#### **INTRODUCTION**

How the natural streams and floodways within the Town are addressed as development occurs will have a large impact on the degree to which the Town can retain those characteristics it wishes to preserve, how well it can interlace community districts, and, ultimately, the preservation of the Town's visual character. Best Management Practices (BMPs) can also serve as the underpinning of sustainability efforts with regard to water use and conservation.



### Storm Water Management

The Town has striking vistas and topography that frames two major drainage watersheds: the Marshall Branch and Tributaries as well as the Kirkwood Branch and Tributaries. These watersheds are not only the key to storm water management for the Town but also support the natural landscape and ecosystem that gives the Town its distinctive visual character. It is through the following BMPs that these mitigation efforts can be accomplished:

- Rain gardens/bio-retention cells
- Elimination of curb and gutter
- Bio-swales
- Green parking
- Infiltration trenches
- Inlet protection devices
- Permeable pavement
- Permeable pavers
- Rain barrels and cisterns
- Detention/Retention

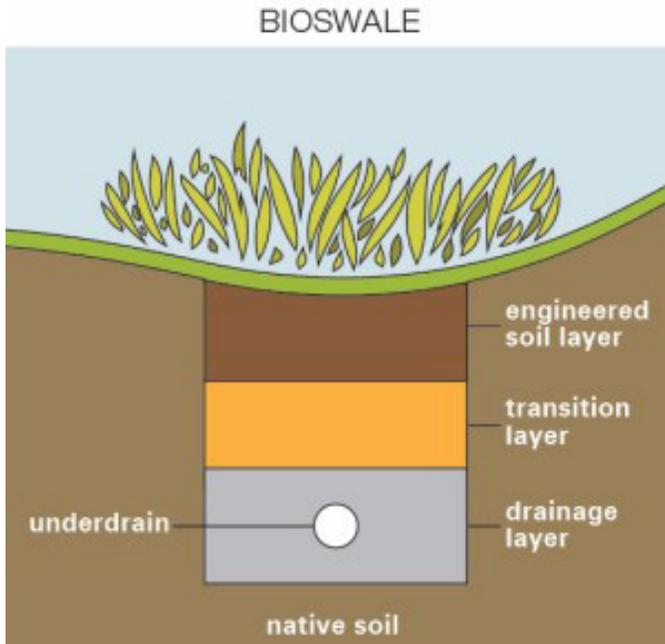
### Rain Gardens/Bio-retention Cells



### Elimination of Curb and Gutter

By implementing this BMP, new roadways are designed and constructed without curb and gutters to allow for infiltration by increasing sheet flow and reducing runoff volumes. Runoff could be left to flow to bio-swales or bio-retention cells. This will help prevent erosion and also maintain predevelopment runoff conditions.

### Bioswales



### Green Parking Design

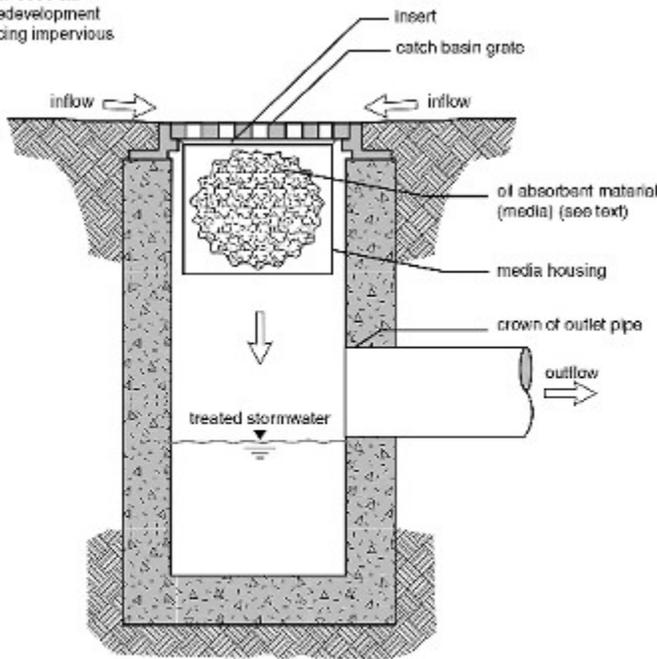


### Infiltration Trenches

Infiltration trenches are rock-filled ditches with no outlets that collect runoff and allow it to infiltrate into the soil increasing storm water infiltration and pollutant removal. This BMP is restricted to sites/ areas where potential ground water contamination, soils, and clogging are of concern.

## Inlet Protection Devices

Tributary area 5000 s.f.  
(7000 s.f. if redevelopment  
project replacing impervious  
surface).



**SECTION VIEW**  
NTS

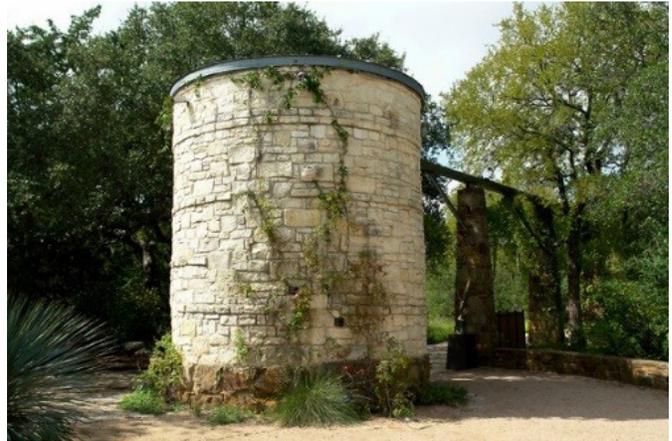
**The typical design of a catch basin insert is a set of filters that are specifically chosen to address the pollutants expected at that site (Source: King County, Washington, 2000)**

## Permeable Pavement/ Pavers

The permeable pavement BMP incorporates a porous pavement section whose surface can have an appearance similar to concrete or asphalt. The subsurface can consist of a stone course with enough voids where runoff is temporarily stored as it infiltrates into the subsoil.



## Rain Barrels and Cisterns



## Riparian Buffers

Riparian buffers are areas along a stream protected from development to physically protect and separate it from future disturbance and encroachment. It can also provide flood storage and stream ecosystems and habitats. This BMP is aimed at preservation of streams, lakes, and wetlands and the integrity of ecosystems and habitats.

## Vegetated Filter Strips

This BMP consists of utilizing bands of dense vegetation planted downstream of a runoff source and are used for treating runoff from roads and highways, driveways, parking areas, roof downspouts, and other impervious areas. Additionally, they can be employed along streams and/or open vegetated waterways to treat runoff from adjacent riparian areas.

## Storm Water Detention

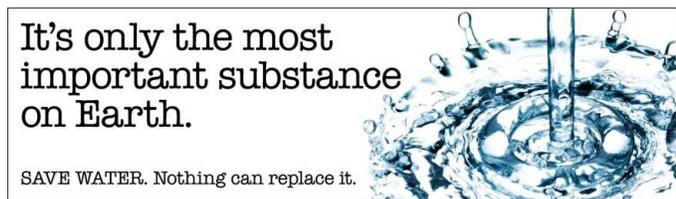


## Water Conservation Practices

The Town's current and future water consumption could be driven by a wide variety of needs that could include domestic, commercial, industrial and institutional users. BMPs can be adopted that will improve water use efficiency for the Town's operation of the system as well as for the end user customers.

The following BMPs could drive the Town to achieving those goals:

- Appoint Conservation Coordinator
- System Water Audit & Water Loss
- Water Conservation Pricing
- Prohibition of Wasting Water
- School and Public Education
- Water Survey of Customers
- Landscape Irrigation Ordinance
- Water Fixture Ordinance
- Water Wise Landscape Design & Conversion Programs



## Putting BMPs into Action

There are programmatic and policy initiatives that are needed to implement BMP. These include:

- Appoint Conservation Coordinator
- System Water Audit & Water Loss
- Water Conservation Pricing
- Prohibition of Wasting Water
- School and Public Education
- Water Survey of Customers
- Landscape Irrigation Ordinance
- Water Fixture and Toilet Ordinance
- Water Wise Landscape Design & Conversion Programs





## **PART THREE: THE PLAN ELEMENTS**

### **SECTION SEVEN: THE HOUSING PLAN**

#### **INTRODUCTION**

It is noted in the Economic Development Plan to follow that broadening housing choices and neighborhood amenities would make Westlake a more attractive location for the nation's top employers, which will, in turn, drive demand for high-quality, high-value housing options. With total non-residential entitlements in place approaching 25 million square feet, it is critical that Westlake position itself as a premier destination for employers to ensure a sustainable future and preserve the value that exists in the area. Solana is a picture of what happens in a community that attracts corporate locations. Those corporate locations move on leaving behind specialized building plates that are difficult to adapt to a speculative market. Therefore, Westlake must make sure that it is on top of its game in terms of retention and lifestyle offerings or the changing landscape, as a result of abundant entitlement, will leave corporate centers wanting for the environmental assets they saw at the outset. Among the key Plans (including the Economic Development Plan, Land Use Plan, Thoroughfare Plan, and Open Space Plan) to attracting and retaining the region's top employers is the Housing Plan.

## Current Westlake Housing Offerings

Currently, Westlake generally offers one type of housing product: large lot or acreage home sites in communities that generally attract affluent mature professional households, which are drawn to Westlake's pastoral setting, high-quality schools, and amenities. With a significant amount of commercial space planned for the area, along with strong access to existing employment centers, market forces will enhance Westlake's appeal to a more diverse set of households, leading to market opportunities for a wider variety of housing options. It is not that Westlake must offer a residential product for every budget and household type (lower priced product and rental products can be offered in communities that have transportation connections to Westlake), but a wider spectrum of high-quality housing types will broaden the appeal of Westlake for executive decision-makers as well as the talent they seek, many of whom command high compensation but have varying housing needs and purchase motivations. If the Town is unable to offer products besides those currently available, surrounding areas could secure the highest quality employers, and with them, more affluent households.

It can be said that the "quasi-rural estate" house type that prevails in Westlake speaks to its position as a quiet Township on the edge of the urban outreach of Dallas and Fort Worth. However, with continued rapid growth of the SH 114 corridor and the magnitude of non-residential entitlement currently held within the Planned Developments, Westlake's current "edge" condition will transform to one that is more centrally located. Therefore, the question is whether the Town can maintain the benefits of its edge character in the

midst of inevitable growth. Key to this is to protect the current residential portions of Westlake by proper transition to the non-residential portions through higher priced housing options that preserve the sub-market that Westlake possesses and attract higher value non-residential development (also important to the preservation of residential value). This Housing Plan seeks to accomplish value preservation through coherent sub-market definition and land use transition.

Figure 151 illustrates the distribution of residential entitlement and zoning within the Town of Westlake as of August 2014. Note that there is a diversity of housing product permitted by current entitlement/zoning with no specification of price point. Further, the pattern of distribution is fairly random, raising the potential for land use conflict between residential and non-residential development. Such land use conflicts (in situations where the residential use is not apart of a "mixed-use" designation) weakens both the value of the non-residential development and the residential development as well as the desirability of Westlake as a location for higher end residential product. It is likely that residential use close to the freeway (such as the 6,000 sf lots in PD-3) will not be able to command the price that PD 3-1 (Vaquero Estates) commands. This begins a potential trend of broad price diversification. The current random distribution of product type and price point must be encouraged to redefine itself as coherent pattern of sub-market communities that transition toward the non-residential uses, which is the intent of this Housing Plan.

## Metroplex Executive Housing Corridors

In the past 30 years, executive housing

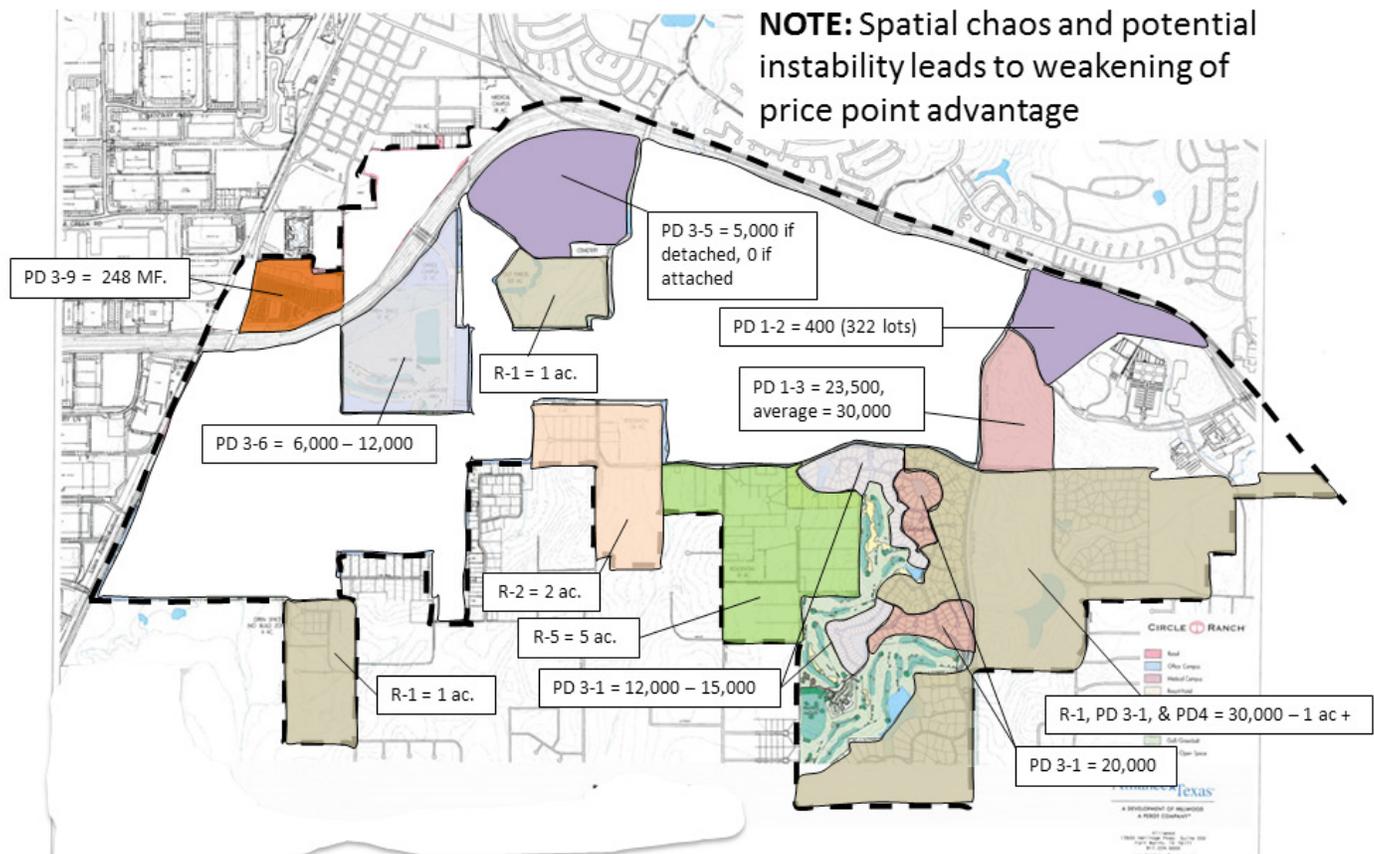


Figure 151: Current Residential Entitlement Distribution

corridors have emerged outside of Loop 635. The area north of Loop 635 along the Dallas North Tollway represents the most robust growth corridor, garnering a large share of executive household growth over the last three decades. The SH 114 corridor northwest of DFW airport including Southlake, Trophy Club, and Westlake, represents another strong executive housing concentration. The area's strong schools and access to employment located along SH 114 will continue to draw affluent households to the area. Likewise, additional employers will likely be drawn to the area as the concentration of executive households continues to grow and as housing options that appeal to a variety of household types and lifestyles, critical to attracting the best employers, evolve.

Currently, Westlake attracts executive households largely between the ages of 35

and 64, accounting for 87% of households earning over \$200,000 within a 15-minute drive of Westlake Town Hall. About 3% of these affluent households are between the ages of 25 and 34, and 10% are over the age of 65. Other executive housing corridors throughout the Metroplex feature affluent households across a wider range of ages. For instance, 6% of Plano's affluent households, and 10% of Las Colinas' affluent households are between the ages of 25 and 34, many of whom may aspire for the large home on a large lot but may currently require a home more accommodating to their life stage and lifestyle. These are future "move-up" buyers in Westlake that the area currently does not attract.

In addition to younger households, other executive housing corridors also feature a larger share of affluent retirees with 21% of affluent Las Colinas households and

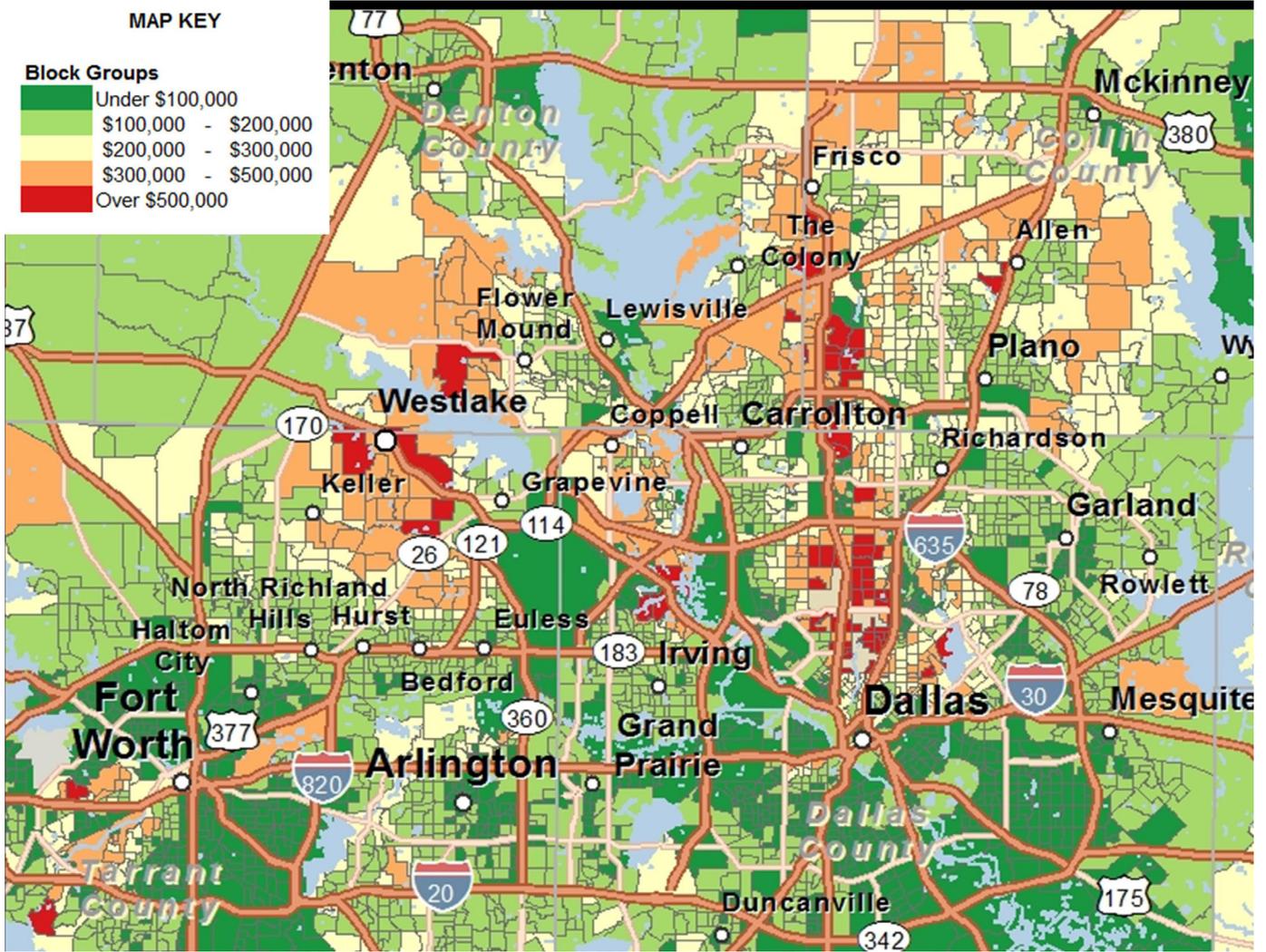


Figure 152: Median Home Value by Block Group: Dallas-Fort Worth Metroplex Source: ESRI

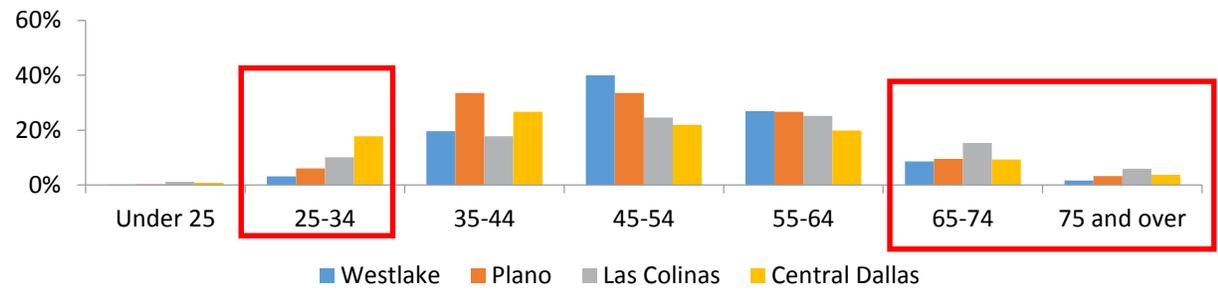


Figure 153: Households Earning Over \$200K by Age: Dallas Executive Housing Corridors Source ESRI

13% of Plano households over the age of 65. Westlake currently contains only about 17 of these households according to 2013 data from ESRI Business Analyst. The introduction of product types appealing to older households will allow Westlake's

current mature professionals and empty-nesters to remain in the community and downsize to a more suitable product; perhaps a product that is lower maintenance but not lower quality.

	LAS COLINAS	CENTRAL DALLAS	PLANO	WESTLAKE / SOUTHLAKE
Core Type	Mixed-Use	Urban	Suburban	Suburban
Office Space in Job Center	19,785,061	35,252,624	14,061,579	2,546,644
Office Space within 20-Minute Drive	52,073,148	120,581,282	64,558,330	8,750,865
Office Space per HH within 20-Minute Drive	481	498	260	158
<b>Product Types Over \$500K</b>				
Acreage SFD		X	X	X
Small-Lot SFD	X	X	X	X
Townhomes	X	X		X
Condominiums	X	X		
Home Size Range (SF)	2,373 – 7,478	1,133 – 29,196	3,130 – 14,500	1,574 – 15,458
Average Home Size (SF)	4,609	4,979	5,381	5,285
Average Price per Square Foot	\$190	\$359	\$178	\$204

Figure 154: Office Space and Housing Correlation in North Texas Cities

Overall, Westlake's quality of life will appeal to a variety of affluent market segments currently not present in the area. The Town's strong access to SH 114, appealing site aesthetics, and open space are already major draws. The addition of employment and supporting retail uses will help attract affluent young professional and retiree households seeking a more mixed-use environment. The level and quality of these offerings will determine what share of high-earning households Westlake will capture (or lose to communities offering more mixed-use settings).

### New Home Demand Summary

The majority of Northeast Tarrant County's new housing demand is concentrated at prices below \$750,000. While this area contains almost 14,000 households earning over \$200,000, Westlake is capturing a small portion of this demand because it offers predominantly large-lot products that appeal only to a certain type of buyer. The inclusion of more product

types will allow Westlake to capture more of these affluent households, and, thus, higher-quality employers. Employee housing priced under \$750,000 (or higher) can be accommodated in areas outside of Westlake.

In particular, Westlake's quality of life will appeal to affluent households without children encompassing 57% of total demand for homes over \$500,000 north of Southlake Boulevard. These households will be more motivated by Westlake's strong access, site aesthetics, and access to employment and retail when compared to households with children, who are largely motivated by the presence of Westlake Academy.

Young professionals and young families, classified as households age 25 to 34, will generate annual demand for more than 15 new homes priced over \$1 million in the area north of Southlake Boulevard. According to the U.S. Census, Westlake currently contains just three affluent households between the ages of 25 and 34. Retirees will be another large source

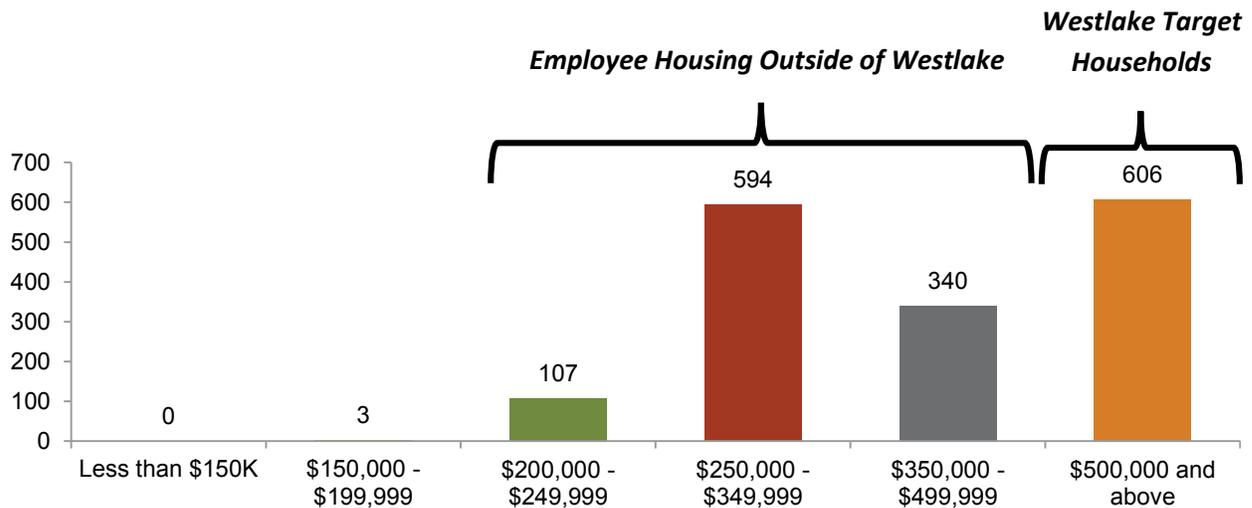


Figure 155: Annual New Home Demand Northeast Fort Worth Sub-markets: 2015 – 2030  
Source: ESRI, Metro Study, RCLCO

	HOUSEHOLDS WITH CHILDREN				HOUSEHOLDS WITHOUT CHILDREN			
	YOUNG FAMILIES	MATURE PROFESSIONALS	EMPTY NESTERS	RETIRES	YOUNG FAMILIES	MATURE PROFESSIONALS	EMPTY NESTERS	RETIRES
<b>% of Total Market over \$500K</b>	<b>16%</b>	<b>24%</b>	<b>2%</b>	<b>1%</b>	<b>9%</b>	<b>15%</b>	<b>14%</b>	<b>19%</b>
<b>Achievable Sales</b>								
\$500K-\$750K	53	78	6	2	30	49	45	61
\$750K-\$1M	19	28	2	1	11	18	16	22
\$1M+	18	27	2	1	11	17	16	21
<b>TOTAL: NE Fort Worth Submarket</b>	<b>90</b>	<b>134</b>	<b>10</b>	<b>4</b>	<b>52</b>	<b>84</b>	<b>78</b>	<b>105</b>
<b>NORTH OF SOUTHLAKE BLVD TOTAL</b>	<b>45</b>	<b>67</b>	<b>5</b>	<b>2</b>	<b>26</b>	<b>42</b>	<b>39</b>	<b>52</b>
<b>Purchase Motivations</b>								
Access to 114	X	X	X	X	X	X	X	X
Appealing site aesthetics	X	X	X	X	X	X	X	X
Proximity to retail and entertainment			X	X	X	X	X	X
Mixed-use environment, urban feel					X	X	X	
Westlake Academy	X	X						
Open space	X	X	X	X		X	X	X

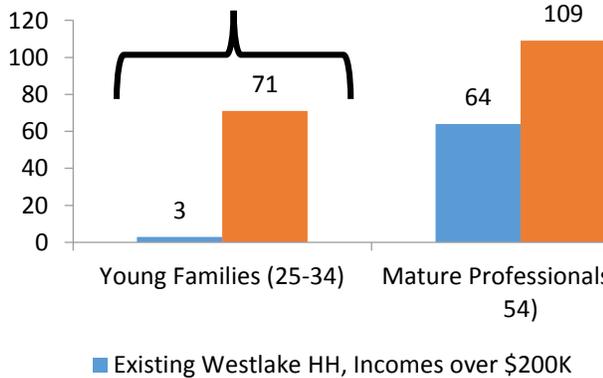
Figure 156: Annual New Home Demand Summary, Northeast Fort Worth Sub-market, Homes Priced Over \$500K Source: US Census, RCLCO

with demand for more than 11 homes per year over \$1 million. With just 17 current affluent retiree households in Westlake, the area is likely to see a strong increase in households over age 65 as commercial uses are added and mature professional households age in place.

The market trends noted above establish that emerging market conditions in Westlake will include demand for more

diversified housing options, and the inclusion of a variety of housing types will allow Westlake to preserve the Town's value, attract younger buyers, meet the future housing needs of an aging population, and mitigate value encroachment. Current entitlements allow for more than 2,000 single-family residential units and 330 multi-family residences, which establish that zoning is in place to allow more diversified housing options. Although

**Alternative Households Attracted to Westlake with Alternative Product Preferences**



**Alternative Households Attracted to Westlake with Alternative Product Preferences**

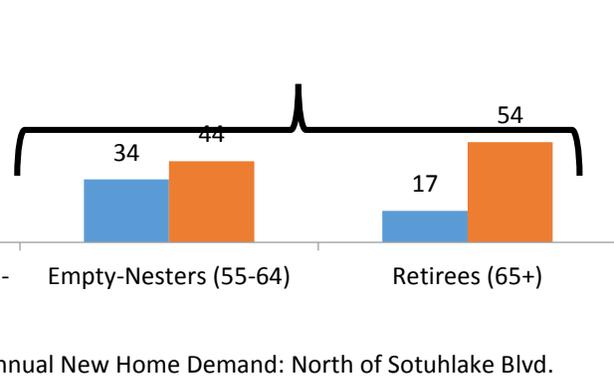


Figure 157: Existing Westlake Households and Annual New Home Demand: Incomes Over \$200K, Homes Priced Over \$500K Source: ESRI, Metro Study, RCLCO

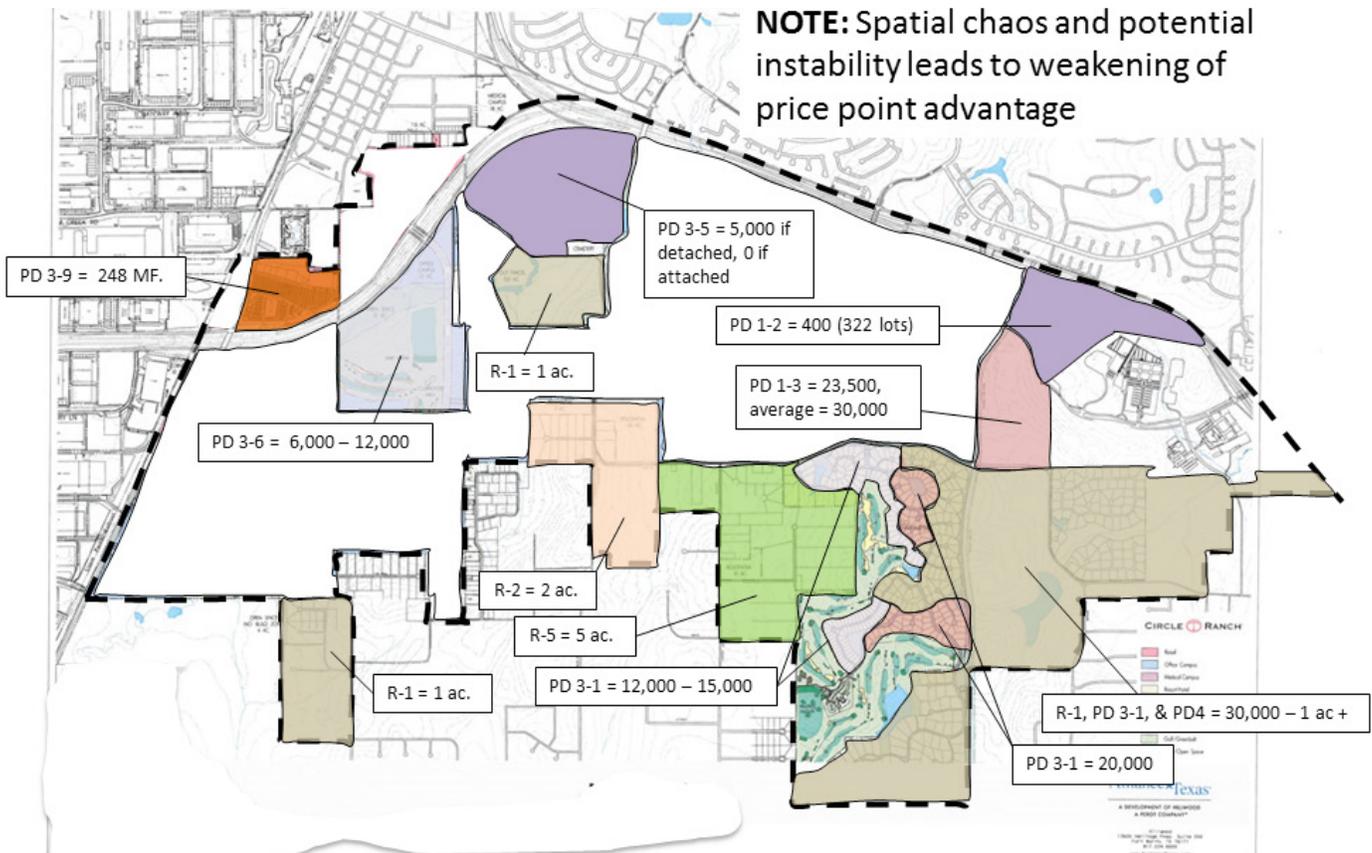


Figure 158: Current Residential Entitlement Distribution

it is not constitutionally permissible to decline the approval of housing projects that conform to zoning, which could include housing projects at relatively low price points, the Comprehensive Plan can protect price point through constitutionally appropriate means.

Without a plan, unplanned emergence of market diversification could weaken sub-markets that already exist, leading to value erosion. As shown in Figure 158, the current entitlements promote spatial chaos, and potential instability could lead to weakening of Westlake's price point advantages.

Sub-Market Attractors	Sub-Markets			
	Value-Protection: Current Sub-Market	Younger High- End Sub-Market	Older, Life Cycle Change Sub-Market	Value Transition Sub-Market
Visual Amenities/ Project Identity	X			
Low Traffic/ No Congestion	X			
Project Separation	X		X	X
Strong Public Domain/ Community Identity		X		
Land Use Continuity/ Stability	X	X		
Location Value Identity/ Market Continuity	X	X		
Access Quality/ Specialized Services/ Retail/ Entertainment	X	X		
Higher Density/ Greater Community over Greater Separation			X	
High Security		X	X	
Low Maintenance			X	
Commodious Interior Space for Acquisitions			X	
Parks and Communal Activities		X	X	
Schools		X		
Spatial Definitions and Experiential Definition of Location	X	X		X
Commercial Separation	X	X		

Figure 159: Sub-Markets and Sub-Market Attractors

There are four housing objectives for the Town of Westlake that can be met by the Housing Plan:

- 1. Preserve value in a changing context.** What is necessary to assure that Westlake continues to capture the higher-end market?
- 2. Diversify the higher-income market to attract younger buyers.** What can Westlake do to get more of these buyers in Town?
- 3. Meet future housing needs of an aging population.** How does Westlake provide high-quality products to accommodate life stage changes? Must they leave the community?
- 4. Mitigate value encroachment.** As Westlake grows toward SH 170 and Keller, how does Westlake keep this from eroding value overall by generating lesser comps?

Existing housing entitlements do not accomplish the above objectives. Various products and price points are incoherently distributed across the Town, and several land use conflicts exist, both of which can lead to instability and degradation of value and price point advantage. The recommended strategy to accomplish the above objectives involves the

establishment of distinct sub-markets within the Town to create an orderly distribution of varying uses within a single, multi-faceted community. The purpose of the sub-markets is to provide commercial separations, accommodate traffic, and overcome any associations with external markets encroaching upon Westlake. Sub-markets will have a spatial definition relative to market attractors rather than competition and will be separated and connected by thoughtfully distributed amenities, trails, and open spaces. Each sub-market has specific attractors, some of which will be shared among sub-markets.

**Preserving value in a changing context:** Of paramount concern to citizen participants in the Public Planning Workshops is the maintenance of education and amenities, and the fact that context associations are essential to preservation of value. Amenities, protections from commercial encroachment, elimination of traffic inundation, and preservation of access to quality services and shopping are key elements to value protection and even enhancement. The configuration of sub-markets along Dove Road without

spatial definition will likely only corrupt each other. With a logical array about a Town Common that sequences from larger lot/ higher price point to smaller lot/ higher price point, the sub-markets can co-exist, and overall value is preserved through clear spatial definition. In terms of commercial uses, corporate centers located within Westlake enhance the Town's desirability for executive housing and more generally preserves the contextual assets that support higher residential value and quality of life.

**Diversify the higher-income market to attract younger buyers:** Younger, affluent buyers are purchasing product nearby, or even in more distant nodes, but not in Westlake as evidenced by the lack of product diversity. The locational advantages of Westlake appeal to many of the purchase motivations of young, affluent consumers including access to SH 114, appealing site aesthetics, and good schools (if pre-family buyers). Missing from Westlake are dynamic mixed-use projects that can satisfy the desire for urbanity while also respecting the natural environment of Westlake. With the sub-market plan, urbanity and open space can co-exist to deliver an environment unlike any other in the Metroplex. Young buyers are seeking quality in product, sense of place, and convenience but not necessarily large lots, and most importantly, convenience. Given their purchase motivations and product desires, the sub-market designed to target these individuals is located closer to the school, close to the park, with convenient access via trails to all desired destinations. Product types could be priced over \$800,000 or \$1 million, but would come in lower maintenance forms such as villas and small-lot detached homes designed for busy lifestyles and convenience, without sacrificing quality.

**Meet future housing needs of an aging population:** Another market audience largely missing in Westlake is 65+ households seeking simpler, lower maintenance, high-quality product. Product types appealing to this buyer include higher density (townhomes, villas, and garden residences), higher security, and lower maintenance typologies with housing interiors capable of handling art and furnishings of the wealthy older folks. The ideal size of these projects is approximately 15 to 35 acres, making them ideal for small parcels north of Dove Rd., as transitional between lower-density, single-family development and commercial development.

**Mitigate value encroachment:** The purpose of this sub-market is to accommodate market encroachment from lower price point borders without corrupting the strong sub-market pricing and values Westlake enjoys. The primary planning premise for this sub-market is to provide spatial separation of the different price point sub-market in a way that is not experientially connected to the other sub-markets in the Town. This will happen along the common border with Keller for properties accessing the widened Dove Rd., west of Davis Blvd.. Much of this property is currently zoned commercial, but the Town can incentivize the owner to return the property to residential use through a commercial development square foot transfer mechanism described in the Land Use Plan.

## Creating Spatially Contiguous Submarkets in Locations That Support Value

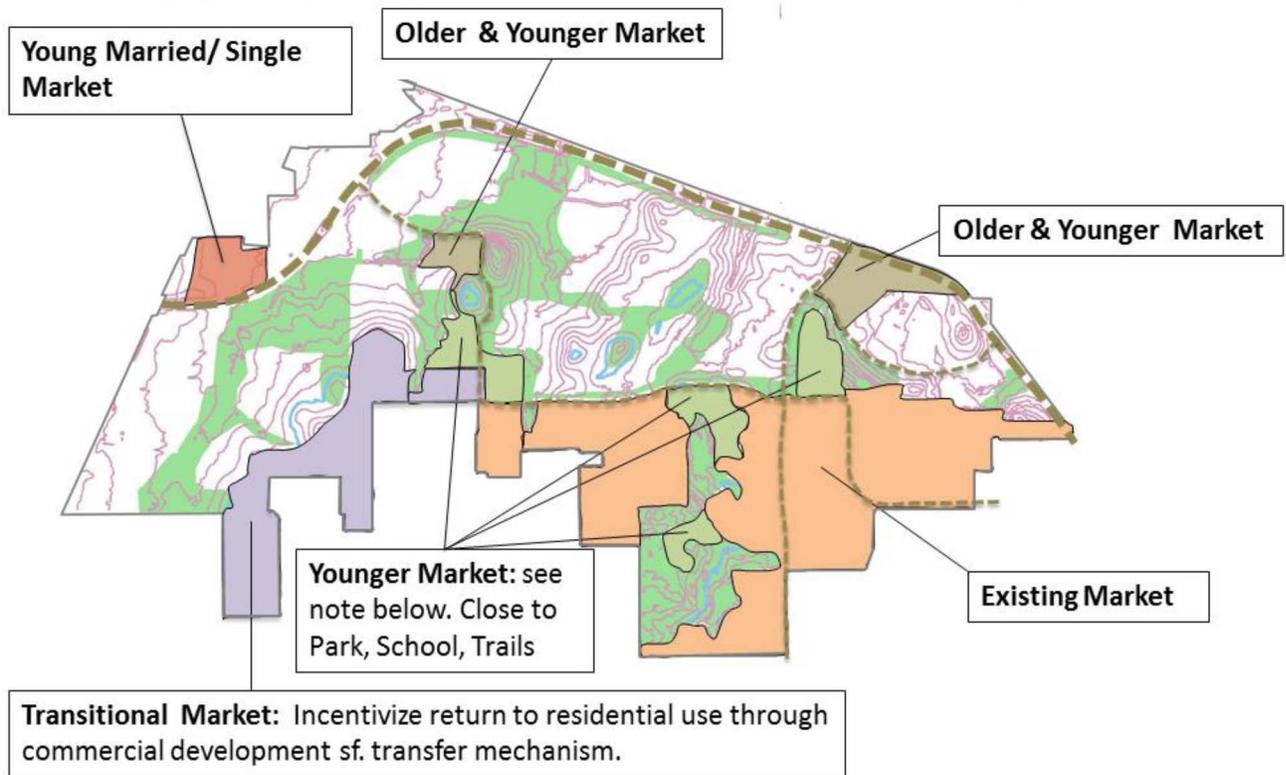


Figure 160: The Housing Plan

Submarket	Likely Price Range	Density (Units per Acre)	Supportable Units (Next 15-20 Years)	Product Types
Preservation of Value	\$1M - \$4M+	1 - 2	100 - 300	Large-lot detached homes, similar to existing development in Vaquero
Diversification of High-End Market	\$700K - \$1M	4 - 6	800 - 900	Low-maintenance, high-end offerings: villas, small-lot detached,
High-End Senior Living	\$600K - \$900K	5 - 7	500 - 600	Townhomes, Villas, Garden Residences
Mitigation of Value Encroachment	\$500K - \$800K	6 - 9	400 - 600	Small-lot detached, Townhomes, Garden Residences

Figure 161: Potential Housing Market by Sub-Market

Figure 161 projects the potential market activity by sub-market if value preservation measures and spatial definition can be accomplished.

Representative product types that could be accommodated in the above sub-markets could include the following:

## Alternative Housing Product 1

# Caruth Homeplace, Park Cities, Texas: Older Low Maintenance/ High Security Buyer.



### **Product**

- Two to three story common wall Town Homes
- Street facing carriage garage and entry courts
- Prices range from \$800,000 - \$1.3+

### **Market Audience**

- 70% empty-nesters and retirees, 30% young single professionals and couples
- Main purchase motivations include proximity to Highland Park Community, and reduced maintenance

## Alternative Housing Product 2

# Tuscan Village Age-Restricted Community: Lakeway, Texas



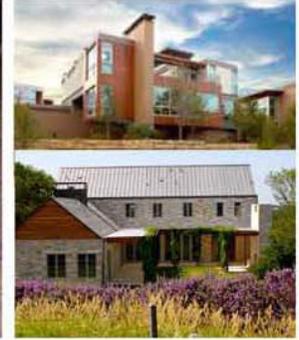
### **Product**

- Townhomes, 1-2 story Villas
- Townhomes have rear-loaded garage; Villa products contain front- and rear-loaded garages
- Prices range from \$270,000 - \$600,000

### **Amenities**

- Clubhouse, central park, library
- Access to yacht club and marina in Rough Hollow, a nearby master-planned community

## Montgomery Farm, Allen, Texas: Younger High End Buyer



### Product

- Townhomes, 1-2 story Villas
- Strong environmental ethic in home design and land planning. 40% community open space.
- Prices range from \$600,000 - \$1M+

### Amenities

- Specialty shopping, office employment, open space, trails, public art.
- Access to operating farm, tree farm, art activities, land conservancy.

## East Shore, The Woodlands, Texas: Mixed Market



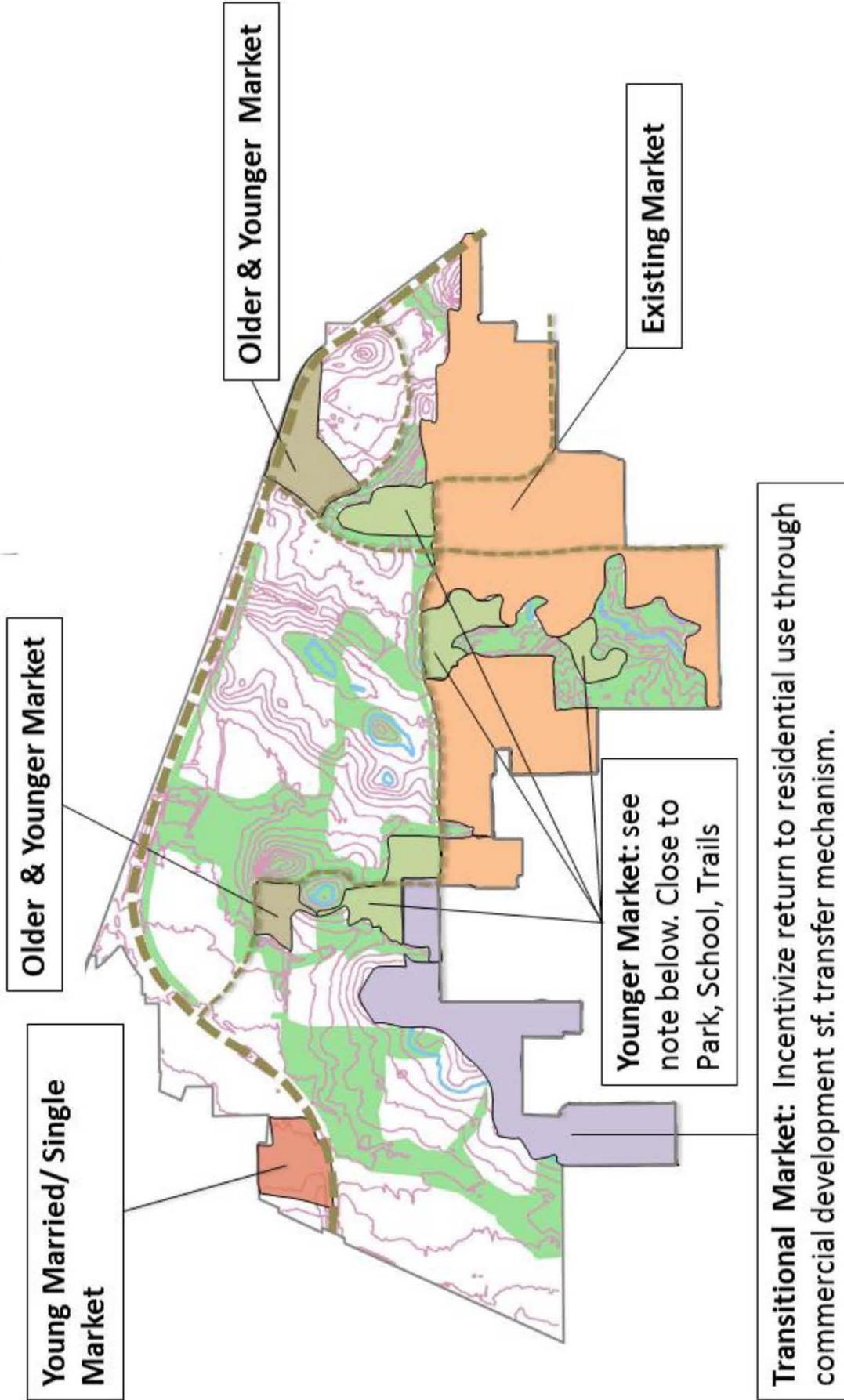
### Product

- Estate Homes: \$1.8M - \$4M+
- Condo: \$400,000 - \$600,000+
- Row Homes: \$500,000 - \$700,000

### Concept

- 169-acre enclave on the eastern edge of Lake Woodlands, located near The Woodlands Town Center
- Close proximity to employment core and town center, offering a variety of housing types
- Serves as a transitional district between mostly residential sections of the community and employment concentration

# THE HOUSING PLAN



DISCLAIMER: The Housing submarket configuration and lot size recommendation for such configuration, in no way modifies any approved PD Plan, PD Ordinance, or zoning nor does it give any area currently entitled additional residential entitlement. The transition of existing non-residential areas to a residential use or the amendment of the permitted lot size/ unit density of any Planned Development Ordinance or zoning which permits a residential use; shall be determined through a cooperative Town/ property owner process which takes place as site plans, requests for amendment of any existing Planned Development Ordinance, and/or requests to transfer commercial square footage from one land use district to another are submitted for Council approval (when the legal mechanism for such transfer has been adopted by the Town of Westlake). See Section G of the Implementation Plan policy related information.





## **PART THREE: THE PLAN ELEMENTS**

### **SECTION EIGHT: THE ECONOMIC DEVELOPMENT PLAN**

#### **INTRODUCTION**

Part One: Assessments of this Comprehensive Plan Update establishes that the current level of commercial entitlement is necessary in order to create an Ad Valorem tax base in Westlake that will support future General Fund requirements (assuming that the Town seeks a level of service reflected by the General Fund) that is like other comparable cities, such as Highland Park, Texas. In that assertion is an inherent implication that Westlake needs to see build-out of a significant portion of the current non-residential entitlement in order to sustain the proportionately low residential assessments it now enjoys. Recent office projects such as Solana, Fidelity Investments, and others in the western portion of the Town have not built to the density levels permitted by the Planned Development ordinances. Some of these projects have only attained a .12:1 FAR in districts where .4:1 FAR is permissible. This represents approximately 25% usage of the entitlement density, and continuation of this trend would leave Westlake deficient, in terms of Ad Valorem revenue to serve the General

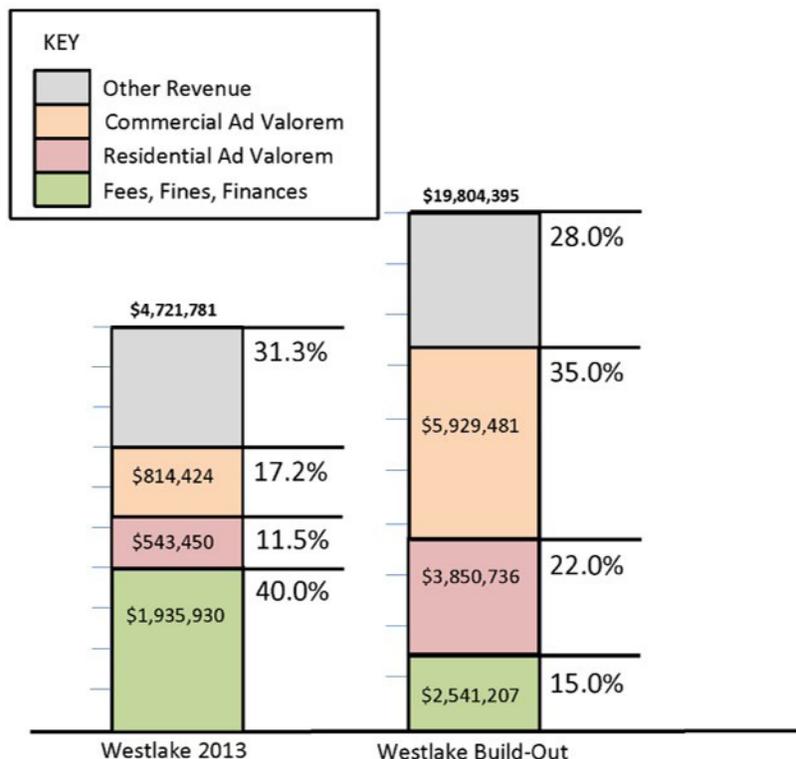


Figure 162: Westlake Ad Valorem

Fund demand at a General Fund cost per capita of \$2,900 per person. If the demand for service remains at the Highland Park level (largely a function of the similar socio-economic demographics), then Westlake will be forced to raise its currently low rate of taxation or reduce its level of service. There is far more office development embedded in the Planned Developments than retail development. For example, one PD contains approximately 12 million sf. of office and 3.0 million sf. of retail. Both office and retail development are required to provide the non-residential portion of the General Fund obligation (Commercial Ad Valorem in Figure 162).

This means that underutilization of the entitlement density will curtail attaining the proportion of non-residential Ad Valorem performance illustrated in Figure 162. The importance of attaining the Ad Valorem targets of the Comprehensive Plan is

affirmed by citizen comments flowing from Public Planning Workshops #1 and #2. These comments include:

1. Preserve the sense of balance between residential and commercial development by promoting continuity of development forms, pallet of landscaping, meaningful/ functional buffers, built area to land area ratios, and character of the street experience.
2. Preserve Westlake's distinctively low Ad Valorem tax rate on residential properties.
3. Maintain a balance between the Ad Valorem revenues of non-residential and residential development so that property taxes on residential property do not have to be disproportionately raised to accommodate the impacts of future development in and around Westlake.

Not only is it important that Westlake

attain a significant portion of non-residential square footage currently permitted (approximately 18 million sf.), but it is also important that non-residential development is of sufficient value. Therefore, one of the primary Economic Development Objectives is to achieve sufficient office value and square footage to accomplish the Ad Valorem targets of the Town.

Current entitlements also contain rights to significant retail, hospitality, and entertainment square footage. More specifically, entitlements permit approximately 3.5 million sf. of retail and 2.0 million sf of hospitality/ entertainment. Again, it is important that the Town achieve build-out of these entitlements at a level of value that will accomplish the Ad Valorem targets established within this Plan. Further, participants in the Public Planning Workshops identified quality retail as very important to them. Therefore, another Economic Development Objective of the Town is to attain the retail/ hospitality/ entertainment square footage currently entitled at a level of quality necessary to both fulfill the Ad Valorem targets and reflect the desired image of the Town.

Listed below are key citizen generated statements from Public Workshops #1 and #2 related to office and retail development:

1. Promote a visual character that communicates a high quality of building and landscape construction, both public and private.
2. Promote non-residential/ office development that hosts a significant ground plane of pedestrian features and visual amenities, instead of parking and service, and that ground planes

of neighboring projects flow together to create a more campus like setting, overall.

3. Establish development guidelines that discourage typical strip-like, suburban commercial development.
4. Create a town center/ hub.
5. Maintain Westlake's sense of separation from surrounding typical commercial and residential development.
6. Focus the commercial components of Westlake to locations along the SH 114 and SH 170 portions of the community.
7. Encourage the predominantly non-residential growth of western portions of Westlake to properly compliment the residential portions of Westlake and preserve/ enhance residential values.
8. Discourage the development of distribution facilities in Westlake and maintain a land use differentiation from land development to the west.
9. Promote and encourage compatibility between commercial development in Westlake and other commercial centers that contributes to greater economic vigor overall and prevents competition between commercial centers in the region.
10. Maximize the opportunity of the strategic importance of the SH 170/ SH 114 intersection to create a center and identity that is uniquely Westlake, which will enhance the value of Westlake, overall.
11. Maintain a balance between the Ad Valorem revenues of non-residential and residential development so that property taxes on residential property do not have to be disproportionately raised to accommodate the impacts of future development in and around Westlake.

Another important Economic Development Objective is reinforcement of, and perpetuation of, higher price point residential within the Town. Of particular interest is attracting the younger buyer segment of this market and providing other high price point housing options for those going through a life stage transition (both of these housing targets are discussed in detail in the Housing Plan).

In light of this analysis and comments flowing from Public Planning Workshops #1 and #2, there are three primary Outcome Economic Conditions that an Economic Development Plan must seek to attain. These Outcome Conditions are:

**1. Corporate Center Locations (A):** It is determined that the higher value office products are generally those developed as corporate headquarters. Most speculative office product must be accomplished within cost thresholds determined by rent capabilities and that most corporate headquarter facilities are built to higher standards, driven by corporate self-image. Much of the current office development generally viewed as having attained a “Westlake” level of quality is for corporate headquarters purposes. This is seen with Solana and Fidelity Investments.

**2. Specialty Retail Dominance (B):** Traffic driven retail tends to dominate the landscape of highway/ freeway locations. Traffic driven retail and specialty retail have important differences that relate to value. These are:

**a. Traffic Driven Retail:**

- i. Ubiquitous in Nature: Appear over and over along major traffic corridors.
- ii. Plate Dominated: Typically big box retailers.
- iii. Volume Sales: Move large volumes of product.
- iv. Price Sensitive: High volume sales are related to price. Therefore, lower prices are typical.
- v. Urgent Inventory: Typically sell hardware, groceries and/ or dry goods of a type that is tailored to drive in/ drive out demand patterns, things needed on the way home, etc.

**b. Specialty Retail:**

- i. Unique in Nature: Typically location specific because they depend on loyal patronage.
- ii. Smaller Plate: Smaller operations, often associated with an anchor.
- iii. Specialized Sales: Target specialized product sales, such as the Art of Shaving store in North Park or specialty jewelers.
- iv. High Dollar: Generally sell a more expensive product in smaller volumes.
- v. Inventory for Shopping: Inventories are geared to the shopper who is prepared to spend more time in the shopping environment.

The sales per square foot difference between the two retail types is significant. Generally box retailers

require \$200-\$300/ sf. annually, while specialty retailers can often exceed \$400/ sf. Therefore, specialty retailers tend to bring greater value from an Ad Valorem perspective, while traffic driven retailers may generate more sales tax due to their volume sales. Therefore, promoting a dominance of specialty retail is an economic development target of the Economic Development Plan.

### **3. Higher Price Point Housing (C):**

Of paramount concern to citizen participants in the Public Planning Workshops is maintenance of residential value as the Town builds out. In addition, participants want to see younger buyers present in the higher price point market select Westlake as a place to live. Finally, the older population of Westlake will face life transitions over the next few years, but they desire to continue residence in their Town. This means that other high price point housing options are needed in the housing inventory of the Town. Tactics aimed at attracting higher price point housing are presented in this Economic Development Plan, and a

Plan for spatial definition of housing sub-markets within Westlake is presented in the Housing Plan.

The interrelationship of these three outcomes requires the Economic Development Plan to be broad, spanning from office to residential initiatives. Corporate centers located within Westlake enhance the Town's desirability for executive housing and more generally preserves the contextual assets that support higher residential value and quality of life. Relocation literature reveals that quality of life is among the most important selection criteria for corporations and their executive leadership. At the same time, concentrations of wealthier residents promote an identity favorable to sustaining specialty retail/ entertainment and the proximity of specialty retail/ entertainment enhances attractiveness to higher price point markets. Therefore, it can be said that a reciprocal relationship exists between the three desired Economic Development Outcomes. It would be difficult to achieve meaningful success in one area of outcome without achieving success in the other areas.

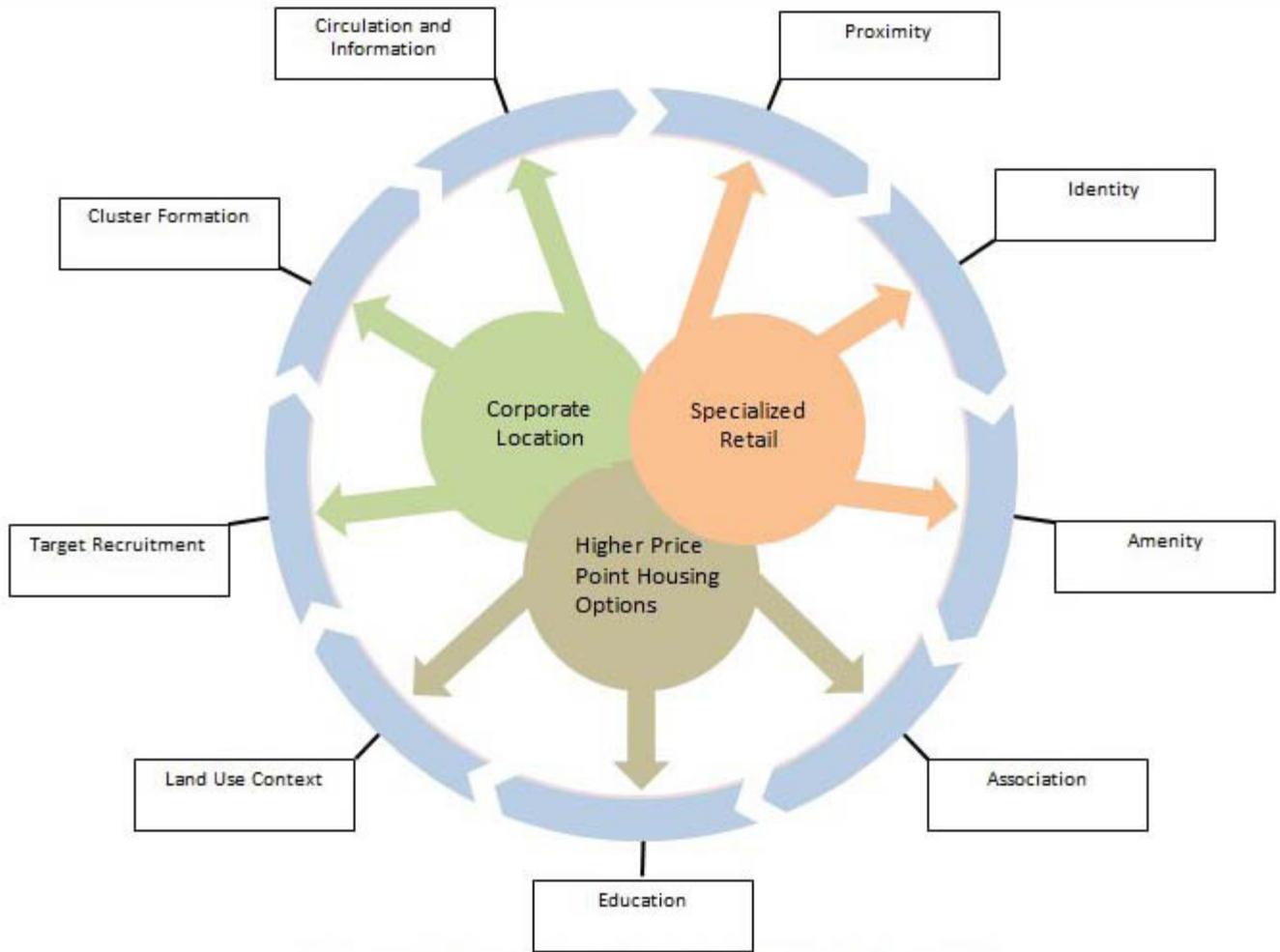


Figure 163: Circle of Economic Development

### THE CIRCLE OF ECONOMIC DEVELOPMENT

Figure 163 illustrates the inter connection between Economic Development Objectives (discussed above) and Economic Development Initiatives needed to attain those objectives. The center portion of Figure 163 shows the aforementioned Economic Development Objectives (desired Economic Development Outcomes) clustered together in a manner reflective of their interdependence. Here, Specialized Retail lies on higher price point housing, which lies on Corporate Center Location. Each of these Economic Development Objectives is associated with an Economic Development Initiative needed to realize that Outcome. There are nine Economic

Development Initiatives, over all. The Economic Development Initiatives needed to realize desired Economic Development Outcomes are broken down into particular actions that collectively constitute the initiative.

The Economic Development Plan in its totality can be described simply as a strategy for promoting corporate office location, expanding higher price point residential development, thereby attracting more specialized retail/entertainment development. Note that the forces driving a better economy come from within as well as from out. Most economic development strategies focus on attracting external investment (often through incentives) and fail to realize that

the internal viability of a town is one of the foremost selection criteria considered when relocation decisions are made. Also, an exclusively external view can overlook the organic interdependence of a town's land use functions.

As Westlake is visited with new opportunities associated with the "repositioning effect" of the SH 114 corridor and general growth of the Dallas/Fort Worth Metroplex, it must harvest such opportunities by giving direction to incoming investment that would otherwise drift to opportunistic outcomes, which generally exploit the opportunity rather than amplify it (capture opportunity and not transfer it to the larger community). Economic development must direct opportunistic investment toward more farsighted outcomes led by coordinated public and private investment in Target Recruitment, Cluster Formation, Circulation and Information Networks, Proximities, Identity, Associations, Amenity/ Recreation, Education, and Land Use Context. More specifically, Investment Initiatives include:

- **Target Recruitment:** Promoting Corporate Location through Targeted Recruitment (Strategy A-1). The notion of Targeted Recruitment is intended to set a foundation from which Cluster Formation can grow. Some Targeted Recruitment may be to import missing participants in the local business base or create a new base altogether. Targeted Recruitment will attract a corporate theme for the Town, such as that attained along the Telecom Corridor © in Richardson, Texas. Here, a few seed corporations have nurtured a corporate market identity for the City. Through such market identity, high quality corporate centers

support higher quality public assets, such as Galatyn Center. Richardson demonstrates the importance of Targeted Recruitment in the attraction of Corporate Center Location.

- **Cluster Formation:** Promoting Corporate Location through effective Cluster Formation (Strategy A-2). Working from existing business as a basis, the Strategy reaches out to align other business investment that vertically or horizontally expands the local base. Cluster Formation is more likely when the foundational corporate centers are more primary. For example, Westlake's start with Fidelity Investments could lead to other financial corporations making a home within the Town. Other potential clusters can be considered if, through target marketing, Westlake is able to establish a critical mass of corporate square footage. Financial and technological clusters tend to support higher wages, which enhances the market for higher price point homes among a younger buyer segment of the market. Therefore, the employment potential of relocating corporations is important to accomplishing other Economic Development Outcomes.
- **Circulation and Information Networks:** Promoting Corporate Location through improvement and extension of Circulation and Information Networks (Strategy A-3). Circulation infrastructure is essential to create value patterns that are supportive of the Town's preferred future land use. The Economic Analysis portion of the Assessments (Part One) has already demonstrated that existing office development and potential opportunistic development of the highway frontage (developed at typically low FARs) may not

yield sufficient Ad Valorem tax base necessary to fund a coherent economic development vision as lack of such base does not give the Town capability to assure future debt guaranteed by "Good Faith and Credit". Therefore, infrastructure is the starting place of an Economic Development Strategy. In this case, the key infrastructure is:

- **Circulation:** The Assessments portion of this Comprehensive Plan Update (Part One) reveals the potential vehicular trip generation precipitated by current non-residential entitlement and its power to dramatically change the pastoral setting of Westlake unless measures are taken to anticipate this traffic circulation need. Increased traffic that prevents convenient penetration of the commercially zoned areas could mean development of the highway edge and restrained development of the core areas. This would negatively affect value distribution needed to attract higher-end office users throughout the commercial areas. In addition, retail that is not highway traffic driven needs a fabric of circulation that supports commercial environments/ districts over simple highway frontage. Therefore, coherent circulation becomes increasingly important as Westlake builds out. The circulation system needs to do more than work (from an operational point of view), it must be special. This is addressed further in the Thoroughfare Plan.
- **Information Networks:** It is likely that targeted recruitment toward financial and/ or technical relocations would be enhanced by the availability of information infrastructure capable of accommodating large volumes of

electronic transaction or information exchange.

- **Proximities:** Promoting Retail Specialization through enhanced Proximity (Strategy B-1). Value is largely determined by proximity. This has always been the case since the beginning of human settlement whether that settlement was spiritual, military, or economic. In the spiritual city, places of greater value were located near the temple. In the military city, places of greater value were located near command centers. In the economic city, places of greater value are located near market attractors. Therefore, determination of value has much to do with proximity. In Westlake, residential values are associated with location amongst certain town assets, such as pastoral landscapes and creekways (and away from encroachments such as traffic corridors and commercial development). For this reason, the larger proportion of residential development occurs in the more umbrageous, creek associated, and rolling landscapes south of, and along, Dove Road. Similarly, proximity to traffic corridors and other high traffic zones that are easily accessible tend to be more valuable for retail. Corporate offices pursue locational determinants more like residential estates (corporate estates are like residential estates), while speculative office follows determinants more like retail/ entertainment. The desired Economic Development Outcomes must be supported by a constellation of proximities conducive to the condition's realization.
- **Identity:** Promoting Retail Specialization through enhanced Identity (Strategy B-2). Selection decisions are heavily

influenced by identity, which has market relevance. Westlake today enjoys a distinctive identity which, if preserved, will be an asset for attracting continued residential value. This identity is associated with many factors ranging from environmental to social. Identity is an aggregate image of place established by experience and fulfilled expectation of that experience.

- **Amenity/ Recreation:** Promoting Retail Specialization and Housing Price Point through enhancement and enrichment of the public domain (Strategy B-3). Amenity and recreational assets are important components of the perceived quality of life that a community projects as well as the shopping environment a community promises. These are called amenities within the public domain. Where the public domain is high, the amenities are part of the general experience, allowing the visitor as well as the active participant to appreciate these offerings. General encounter with public domain amenities creates a particular perception of place that privatize or participant only amenities do not. A golf course community certainly can deliver a premium value to lots immediately adjacent to the golf facility, but other lots generally do not hold such value. In the 1980's redevelopment of the Glen Lakes Golf Course (in Dallas) for residential development followed a development plan in which amenities of the course (such as lakes) were engaged with the street, thereby making the lakes a public amenity. Just down the street, the Caruth Homeplace sought to make its amenities more exclusive and privatized them for residents only. The result was that Glen Lakes out

performed monthly lot sales consistently until Caruth Homeplace changed its approach. Commercially speaking, Highland Park Village has significantly improved the public domain quality of its shopping setting, which has, in turn, maintained the Center's attractiveness to specialty retail. While Highland Park Village started with department store anchors, such as Sanger Harris Department Store, it has no anchors today and is sustained on its amenitized shopping environment in a the right location.

- **Associations:** Promoting Higher Price Point Housing Options through enhancing community and personal Association (Strategy C-1). Associations differ from Identity because Identity is experiential while Associations are potential connection. Associations refer to the collective affiliations that make for community cohesion. This is a critical aspect of market association. Highland Park has a high degree of internal association that is one of the locational assets of living in that community and a powerful support of the high price point. The local library, pool and other cultural venues are part of this dynamic. The developers of Caruth Homeplace and Briarwood (in Dallas) discovered early in their project that community building through the creation of internal associations was important. Therefore, much attention was paid to relationship building. Similarly, the Disney Company launched comprehensive internal association initiatives at Celebration (in Florida) in order to nurture that essential social fabric that makes a recognizable place home. Westlake has many latent association potentials, but making them accessible and tangible is important.

Economic Development Objectives	Economic Development Initiatives								
	Target Recruitment	Cluster Formation	Circulation/ Information	Proximity	Identity	Amenity	Association	Education	Land Use Context
Corporate Center Location	A-1	A-2	A-3						
Specialized Retail				B-1	B-2	B-3			
Higher Price Point Housing Options							C-1	C-2	C-3

Figure 164: Economic Development Strategy Matrix

- Education:** Promoting Higher Price Point Housing Options through improvement of Education, passive and active (Strategy C-2). Many residential areas are considered more or less valuable as a result of the educational offerings available to home owners within an area. Therefore, enhancement of educational opportunities is an important component of any Economic Development Strategy aimed at preservation of, and diversification of, higher price point residential development. The citizen participants in Public Planning Workshops #1 and #2 stressed the importance of preserving and enhancing residential value and, toward that end, improving and strengthening the educational identity of Westlake and Westlake Academy. Education, however, is more than classroom facilities; it is an environment of passive and active measures intended to continually educate and raise the awareness of the Town population. Education is on-going community awareness, flowing from mentorship to better traditional schools.
- Land Use Context:** Promoting Higher Price Point Housing Options through creation of an organic association of

Land Uses (Strategy C-3). Westlake is currently on a pathway of creating two separate and autonomous land use components: one is residential and the other is commercial/ non-residential. In the end, the sentiments that lead to separation of uses will simply accomplish placement of the Town's residential fabric adjacent to intense commercial development despite open space buffers between them. Establishing that connection with the commercial fabric is undesirable; closeness to something that is undesirable becomes a reference that influences value. This means that places less close will be more valuable than places closer together. In order to mitigate this association, an organic integration of land uses is needed that engages both commercial and residential in an overall composition of form that can be viewed as a township. As a result, the commercial components have their natural place relative to residential components, and the overall is determined to be a unique, desirable, composite setting.

The above Initiatives present investment areas that are essential to realize the Economic Condition Outcomes, described

earlier in this Plan. The association of Investment Initiative with Outcome is called a Strategy. Figure 164 illustrates the linkage between Economic Outcome and Investment Initiatives.

Each Investment Initiative is associated with a particular Economic Outcome (as implied by the Circle of Economic Development in Figure 164), and each association is assigned a letter - number reference. In order to give greater insight as to the particular type of actions required to implement Strategies A-1 through C-3, the following portion of this Plan identifies particular Tactics.

Tactics are specific actions, therefore, each Tactic Statement starts with a verb indicating the type of action involved. Building on identification of the action, the Tactic Statement identifies the focus of that action and leading parties required.

## **ECONOMIC DEVELOPMENT TACTICS**

In the Tactic portion of this Economic Development Plan, each Strategy is, from this point forward, further expanded with one or more Tactics. For example, Targeted Recruitment (1), associated with Corporate Location (A) is called Strategy A-1 and the first Tactic within that strategy is identified as Tactic A-1-1. More specifically, the Economic Development Tactics by Strategy are:

### **Strategy A-1, Targeted Recruitment:**

Targeted Recruitment builds upon what a community already has. If one does not select targets in order to strengthen what exists, then a community is basically transforming their economy, not expanding it. The risk in any transformation is encountering negative cycles, which may or may not lead to positive outcomes.

In a holistic view of Targeted Recruitment, one would consider the existing set of suppliers and services and endeavor to construct a relatively complete supply chain/ production taxonomy that reveals the missing components and/ or suggest areas of concentrated effort.

Strengthening the local economy is not only served by filling holes in the compliment of associated corporate activities but also maximizing existing strengths and resources while resolving weaknesses and eliminating liabilities. This is called SWOT analysis. Such analysis should reveal Westlake's suitability to particular corporate relocations.

Key among strengths that enhance the attractiveness of Westlake for targeted recruitment is the availability of a capable workforce, management/ executive talent, and residential areas, which provide an enriched quality of life. Therefore, association of the residential portions of Westlake with its corporate components makes such assets more relevant to Corporate Location decisions.

- **Tactic A-1-1: Evaluate corporate community options that already exists within the market area and identify opportunities for corporate concentrations.**
- **Tactic A-1-2: Using the earlier described SWOT (Strengths, Weaknesses, Opportunities, and Threats) Analysis, construct a recruitment agenda that seeks to fill missing supply/production links, maximize strengths/opportunities, and mitigate/resolve weaknesses and threats. Targeted recruitment efforts should view those incentives aimed at filling any missing supply/production activity and/or improving recruitment**

conditions as investments justified by the overall multiplier effect of the Economic Development Strategy.

- **Tactic A-1-3: Set up a working council with major land owners to establish an economic incentives package that is attractive to desired corporate residents.**
- **Tactic A-1-4: Look to industrial development in Alliance and opportunities for vertical expansion of industrial clusters. Particularly investigate, research, and development needs of those clusters and form intellectual partnerships with institutions capable of enhancing research development within Westlake.**
- **Tactic A-1-5: Initiate a town sponsored corporate relocation program that facilitates school, home, and other matters for relocating executives and employees. Include important relocation brokers.**
- **Tactic A-1-6: Develop local strategies aimed at filling workforce gaps, quality of life gaps, as well as supply/ production gaps that desired corporate targets will find compelling as a relocation determinant.**

**Strategy A-2, Cluster Formation:** A study by the San Diego Association of Governments defines industrial clusters as follows:

*“An industry cluster is different from the classic definition of industry sector because it represents the entire value chain of a broadly defined industry from suppliers to end products, including supporting services and specialized infrastructure. Cluster industries are geographically concentrated and*

*inter-connected by the flow of goods and services, which is stronger than the flow linking them to the rest of the economy.”*

Building upon this definition, this Economic Development Strategy seeks to promote the formation of Corporate Clusters within Westlake. Earlier in this discussion of economic development, creation of Corporate Clusters (e.g. Richardson) enhances an area's attractiveness to Corporate Location. Therefore, the overall link between Economic Condition (Corporate Location) and Economic Development Initiative (Cluster Formation) is to promote Corporate Clusters that can establish sufficient critical mass of related corporate activity. Such Cluster Formation also makes Westlake a desirable location for professional services supporting that cluster.

As the definition above reveals, the cluster is the constellation of suppliers and services contributing to a particular product, service, or area of transactional activity. In this configuration, it is the interchange of activities among corporations that transform the cluster into an externally traded cluster. Cluster Formation is the alignment of those necessary supports to foster the emergence of that external trading interface between Westlake and markets outside Westlake. In order to nurture such Cluster Formation, Westlake must:

- a. Complete the supporting chain of inputs and services:** A complete set of interrelated suppliers and services promotes greater cooperation between cluster members, which increases confidence and communication across the transactional spectrum. Finding needed inputs in the local

economy fosters the notion of a business community (more than just a business address) and links all participants together by transaction. Such meaningful linkage develops relationships, which become another attraction for corporate relocation.

- **Tactic A-2-1: Initiate a program of on-going supply chain/production assessment that constructs and refines supply chain/production taxonomies, which are then used to target economic initiatives.**

**b. Production stability:** A highly competitive context, which is an accurate description of the corporate environment of western Dallas County and eastern Tarrant County, makes any measure of stability an attractive economic development incentive. Among the more important elements of stability is facility expansion and agility. Special agile capabilities are attractive to growing and re-defining corporations. Therefore, the capability to realign business processes and, thereby, redefine aspects of output becomes critical. Most of these needs will derive from telecommunications, management innovation, and expansion capability. This is especially true with high tech corporations where mergers and expansions are common. An example is Hosting.com in downtown Dallas. This article on Hosting.com's web page tells the story:

***“Hosting.com, a leading provider of cloud hosting and recovery services today announced the acquisition of Dallas-based Neospire, a mission critical managed hosting company. The acquisition both expands the physical footprint of Hosting.com and...”***

Corporate expansions are the often overlooked aspect of economic development. It is more likely that the initial investment response to market advantages realized in Westlake will come from existing corporate investments seeking to expand or adjust to new opportunities now emerging with the return of certain economic sectors. Therefore, expansion capability and technical assistance becomes very important. It would be a significant economic development tool to offer a Corporate Expansion Program to any incoming investment. Features of an industrial development program would include:

- **Expansion land reservation:** This is a possible mistake that other corporate areas are making because development is treated lot by lot, placing a new corporate investment immediately adjacent to a previous investment, thereby making expansion of the earlier investment more difficult. Westlake has already seen how Fidelity Investments has been able to expand and stay within the community. A coordinated sequence of sale and reserve for a period of time would allow older investment to expand in response to market expansion without having to relocate. Once relocation becomes an option, Westlake will be vulnerable to out-migration and the marketing problems it imposes.
- **Expansion and process realignment services:** Often industrial expansion takes place internally more than externally, meaning production process upgrades more than square foot expansion of the building

plate. In fact, an industry planning to expand the industrial plate could potentially save considerable capital cost if they were to upgrade production process. Support services aimed at such facilitations as finding temporary space, finding suppliers, and coordinating/ facilitating permit procedures are helpful.

- **Tactic A-2-2: Initiate a Corporate Expansion Program that would assure spatial opportunity for plate expansion and deliver technical assistance for process upgrading. Expansion requires a spatial infrastructure available to any new investment that remains available for a period of time and the latter requires an information infrastructure that encourages industrial process upgrades where beneficial to overall economic success and facilitates such investment. Such a program could help find temporary or relocation space within the community.**

- **Tactic A-2-3: Initiate an incubator business program that allows emerging corporations to stay within Westlake.**

- **Tactic A-2-4: Create a public marketplace that serves the marketing of related corporate activities as a means of supporting growth (e.g. Infomart)**

- c. **Predictability of input availability:** To maintain viability in one end of a supply chain, one must maintain viability in the other end of the supply chain. This is one of the economic benefits of true cluster formation. The State of Texas is littered with fading industries, which are located within a community because of a single local factor (such as tax incentives). These industries became

dependent on the supply of other inputs to the production process from sources outside the local area making them vulnerable to economic shifts. Therefore, when these supply inputs became difficult to acquire, the industry diminished but employees stayed and local unemployment went up. Therefore, any Economic Development Initiatives targeted to one end of the supply chain must be accompanied by Economic Development Initiatives aimed at the other end of the production chain.

- **Tactic A-2-5: Execute initiatives that seek to firm and stabilize key production inputs and services, particularly those which support corporate aggregation. Such initiatives include terminal facilities and supply chain connections. In order to do this, supply coordination needs to be part of the development infrastructure.**

- d. **Increase market access:** Increasing the export production capability of any location can be influenced by its logistic advantage or the extent to which local logistics make market connection stronger and/or less expensive to access. In this regard, Westlake has several pathways that can be exploited to strengthen its logistic position.

Distribution capability is a key logistic asset. An extensive logistic network exists in Alliance. Rather than view Alliance as a separate industrial development area, Westlake should view them as assets that improves logistic capabilities from Westlake. Therefore, Westlake has strategic accessibility to one of the premier logistic assets of the Metroplex. In order to accomplish this, discussions should

be initiated with Hillwood to make these connections more tangible and marketable.

- **Tactic A-2-6: Execute agreements with Hillwood to set an operational framework over its proximity to the Alliance logistic platform.**

**Strategy A-3, Circulation and Information:**

Infrastructure is the primary determinant by which land development (conversion of raw land into building ready lots/ tracts) selects. Therefore, the focus of infrastructure is to serve sufficient land availability with sufficient infrastructure capacity, which predisposes selection of that targeted land for development of building ready lots/tracts. The importance of land development to this tactic cannot be under represented because only through land development will sufficient demand for infrastructure services be aggregated in a serviceable configuration that justifies the large capital investment required. Key among infrastructure elements are:

- a. **Circulation Roadways:** Roads are the primary locational reference within the Town's physical structure. Therefore, roadways are the first consideration in any tactical path toward the emergence of development centers.

In Westlake, roadways are needed to disengage commercial traffic from other ordinary residential traffic. Growth of the Town, region, and commercial centers along SH 114 will place a great burden upon existing roadways, which are now undersized to accommodate ordinary traffic without causing operational disruptions. Further, commercial development of the Town is potentially constrained by

a lack of street capacity. Therefore, town, neighborhood, and regional traffic routes that will determine the relationship of future residential and commercial development are needed.

**The biggest mistake Westlake can make is to view streets as a means of passing traffic through town.**

Pass-through functions do not support transaction because they are weak determinants of proximity. Instead, the street system must be viewed as an opportunity to transform Westlake, through movement, into transactional settings by having points of arrival within the Town, such as town center destinations. In this way, traffic comes to Westlake instead of passing through it.

Streets are the determinant of time, distance, convenience, and capability for exchange. These important aspects of connection are the substance of logistics. Therefore, it is necessary to have streets that allow travel time to key destinations to be shortened and Westlake viewed as a welcome relief in an otherwise congested region. Shortening commute times from work to residence is a great advantage that Westlake can offer its corporate citizens. To this end alternative mode connections, such as trails, are important components of the circulation network.

- **Tactic A-3-1: Create a street network that serves an appropriate land area for corporate land development with street capacity that brings corporate movement to and from the corporate area without excessive comingling of residential or retail traffic, yet connects the corporate area to the Town in**

such a way that corporate estates are viewed as compatible with residential estates in that both share a common estate setting.

- **Tactic A-3-2: Assure that corporate locations are connected to the town trail system.**
- **Tactic A-3-3: Locate Corporate Centers on the Town Arterial component of the Thoroughfare System, thereby confirming their closer association with the Town over association with the region.**
- **Tactic A-3-4: Implement a street design that visually affirms the estate identity (over commercial identity) of corporate center locations.**

**b. Information Networks:** The foundation of an information infrastructure consists of telecommunications and networks intended to provide the corporate resident of Westlake with a unique reach and scope. The challenge is to depart from the model where by the demand for costly optical fiber and digital switching systems must be shown before investment can be made and put such facilities in place as a locational attractor. Early placement of the system assures its embeddedness in the vision of Westlake's future. In addition, Westlake can manage the network in such a way as to allow creation of an information platform upon which data sharing is possible (where beneficial to the Corporate Cluster). Telecommunications connectivity has been credited as a primary reason for Richardson's success, according to an article in Business Week which states:

*"A robust telecommunications infrastructure is the one absolute among technoplexes," Desch emphasizes. "With more than 65% of the world's people still waiting to make their first telephone call, telecommunications access is a remarkably powerful, yet scarce, commodity. It provides the instant access required to operate and grow in the world of advanced technology. We take this for granted in Richardson."*

- **Tactic A-3-5: Form partnerships with optics utilities to construct primary telecommunication system elements that will be available to land development for corporate center locations. These include fiber optic lines and switching hubs.**
- **Tactic A-3-6: Provide a research and information platform that is managed in according to continued input from corporate sponsors. The platform permits important data sharing, information disseminations, and corporate visibility.**

**Strategy B-1, Proximity:** Proximity can be better defined as one of three types: Place, Adjacency, and/or Purpose. Place is often referenced by such terms as rural, exurban, suburban, urban, core, etc. Adjacency is referenced by such terms as access, exposure, physical association/connection, etc. Finally, Purpose is often referenced by such terms as hub, harbor, river, rail head, freeway crossroads, intermodal, airport, etc. Most of these associations and the subsequent determination of place for one type of investment over another are defined by roadways.

In the case of Westlake, proximity is particularly important as without redefinition, the dominant proximity will be SH 114. The situation in Westlake is different than Southlake where the close association of 1179 functions as a backer road for SH 114, thereby allowing freeway oriented development to turn inward to Southlake instead of outward to SH 114 (with the back end of such projects facing the City). It is the intention of the Thoroughfare Plan to address this potential pattern with the creation of a Town Arterial Road System that performs like a freeway backer road. Through such a spatial arrangement, the dominance of SH 114 as the most beneficial proximity for retail development is mitigated and other retail locations/ orientations are possible. Failure to overcome the power of SH 114 will accentuate the presence of SH 114 within the fabric of Westlake and bring influence of its economic importance into the fabric of the Town, which seeks to set apart from such direct attachment.

The economic importance of reorganizing the patterns of proximity is to redefine value distribution, which, at present, is highest along the freeway frontage, and create a more distributed pattern that brings sufficient value to property off of SH 114 to merit emergence of a town hub and retail opportunities that are not attached to the freeway but to the Town.

- **Tactic B-1-1: Expand the economically desirable frontage locations through creation of a street network that provides a second tier of development value away from SH 114. This second tier of value opportunity should be sufficiently connected to regional flows that it can support specialized retail and commercial hub activities.**

- **Tactic B-1-2: Through the points of differentiation established as a result of roadway patterns, support the resulting pattern of value distribution that increases toward high points of interchange and lessens in between, thereby allowing a range of integrated investment and supporting nodal development over strip development. Such support should include target recruitment for location at value high points so that the value opportunities they represent are maximized, thereby supporting better investment at points in between. Value highpoints include the town hub, and regional commercial intersections along the Town Arterial System.**

**Strategy B-2, Identity:** Identity is a powerful retail determinant and is generally conveyed through appearance, quality, and activities. To this end, Westlake must consider the importance of its freeway visibility as the window through which the appearance of Westlake will be appraised. Specifically the aspects of Identity are:

- a. **Appearance:** While development at Solana is distinctive, it is different than development of the monuments at Westlake Parkway, and both of those are different than the proposed development at Entrada. As a result, a clear image of the “appearance of Westlake” is not established. However, the large amount of undeveloped land still available promises that establishing an overarching continuity to Westlake’s appearance is still possible.
- **Tactic B-2-1: Establish design guidelines and standards for public and private development along SH 114 and within other retail portions of Westlake that will**

**establish a distinctive visual continuity for the Town.**

**b. Quality:** Not only is the appearance of development important, but the perceived quality of development is, as well. Use of stucco requires continued maintenance while unit masonry is more enduring. Much of the commercial frontage along SH 114 relies upon stucco as a veneer material. Therefore, large scale use of it in Westlake can hinder Westlake from establishing a distinction from neighboring cities (as stressed in the Public Planning Workshops). Quality flows from materials and construction technology. Therefore, Westlake should attain higher levels of material use and building technology that will assure those making significant investment in Westlake that such investment will not be depreciated by poorer construction quality.

- **Tactic B-2-2: Establish standards of construction quality in the use of materials and construction technology that will result in a visibly recognizable level of quality distinction for the Town.**

**c. Activities:** Southlake Town Center has been successful in programming the center's public space, which establishes a special identity. Activities can be ceremonial, festive, and civic or they can be associated with powerful activity icons, such as a particular commercial anchor. Fairview Town Center has managed to attract Macy's and other high-end stores, which impart a special identity to it. To have identity, an Economic Development Program must seek to create activity venues, both public and private, that can be supported by programming and will, in turn, attract such concentrations of

event and venue that a clear identity emerges. It is important that the activity spaces created are located in places that will be viewed as appropriate for the activity. For example, Southlake's Town Square is not facing the freeway but facing the more local street, which is more organically attached to the life of the City. The Park, Open Space and Trails Plan identifies places where Urban/Mini Parks can be located, which could be special places for identifying activities. Activities are an essential part of identity. Aggregation of activities defines venues, and aggregation of venues defines events. Activities draw from the local region; venues draw from inter-county region; events draw from the state, even nation. Therefore, market penetration is enhanced by the management of activities.

- **Tactic B-2-3: Promote the creation of public activity spaces within the public domain and in private development where a concentration of commercial activities are planned and organize the programmed use of such spaces for public events (civic, festive, seasonal, and celebratory). The programmed function should be on-going and a programming director should be appointed.**
- **Tactic B-2-4: Target recruit key high-end anchors to be activity components, especially in conjunction with activity spaces. Entertainment clusters are also desirable in these locations. The influence of identity on the economic desirability of the Town for other uses justifies incentivization of activity anchors.**

**Strategy B-3, Amenity:** The level of amenity one encounters in the conducting of

retail/ shopping activities promotes longer duration of stay within the shopping environment, which supports higher levels of retail specialization. Amenity can manifest as Micro-Climate Creation, Entertainment, or Pedestrian Comfort. More specifically:

**a. Micro-Climate Creation:** Any measure that mitigates temperature and protects from rain, snow, etc. produces a micro-climate condition. It is mechanically easy to attain micro-climate conditions within a closed building, but such provision is not viewed as special nor does it create any particular sense of amenity. However, creative use of solar orientation, wind exposure, plant selection, and mechanical assistance can create favorable micro-climate conditions in the public domain. These are considered amenities that give the location particular memorability. Power parasols can provide both canopy and a power source for creation of micro-climate conditions, for example.

- **Tactic B-3-1: Create standards for commercial centers that produce micro-climate conditions in the public spaces and within the public domain. Such micro-climate settings should be associated with locations of concentrated activity that support the collective shopping environment, such as power parasols or green wall systems.**

**b. Entertainment:** Use of the public domain as an entertainment space transforms the normal notion of pass-through/ pass-by function of a street into a place of focal importance. Many cities sponsor programs that support public entertainment in the public space.



Figure 165: Example Micro-Climate Conditions

- **Tactic B-3-2: Establish a cooperative program with local business that supports entertainment within the public domain. This function should be part of the duties of Program Director for Public Space described in Tactic B-2-3.**

**c. Pedestrian Comfort:** Pedestrian comfort is absolutely necessary for pedestrian participation. Pedestrian comfort includes the normal provision of furniture, lighting, and information systems but also includes eradication of the vertical subdivisions of the public space that confine pedestrian use. For this reason, the Dallas Arts District has transformed Flora Street by creating a continuous ground plane that is uninterrupted by curbs. The ground plane stretches from building front to building front. The traffic paths are demarked with bollards that provide pedestrian safety without diminishing the sense of pedestrian space. Traffic tables at intersections are also effective as they slow traffic and provide a constant ground plane elevation for the pedestrian.

- **Tactic B-3-3: Establish standards and guidelines that promote a pedestrian friendly ground plane throughout the commercial areas of Westlake. Such standards should address furniture, hardware, lighting, information systems, landscaping, paving, and continuity of the ground plane.**

**Strategy C-1, Association:** Association in residential environments is a powerful selection criterion within the higher-end residential market, as discussed earlier in this section. Therefore, any economic development plan that aims at preservation of price point and broadening market options at the desired price point must consider the power of Associations. Association is conveyed through Community Identity, Shared Activities, and Organizational Affiliations.

- a. Community Identity:** The establishment of a community association with a

quality of life that is promoted through media and experience.

- **Tactic C-1-1: Initiate a Community Image Campaign through print media that projects the identity of Westlake into the market place. Also, promote articles and other coverage of Westlake and its special qualities.**

- b. Shared Activities:** The Organization of community activity experiences that are social, recreational, and/ or educational.

- **Tactic C-1-2: Establish community based activities that are organized by the Town (as a function of its recreational program) and/ or membership organizations working in conjunction with the Town. These activities should be educational to support the educational context (presented below) and recreational to promote athletic relationships. Activities may also be organized around special interest, such as water conservation, etc.**

- c. Organizational Affiliations:** The creation of community membership organizations that promote and often host shared activities.

- **Tactic C-1-3: Promote and nurture the establishment of community membership organizations open to all community members that support and host community activities as well as promote interrelationship between members. One of the responsibilities of such organizations could be to support the mentorship program discussed below.**

**Strategy C-2, Education:** The citizen

participants in the Public Planning Workshops expressed a passion to further establish Westlake as an education center. Education is a powerful determinant in selecting location of residential investment, especially at higher price points. Therefore, pursuit of this interest will greatly benefit Westlake's Economic Development Objectives. However, education is not simply about classrooms. In order for Westlake to be a center of education it must support educational venues that are not limited to school facilities. Education as a community distinction means that mechanisms intended for the beneficial transfer of information exists throughout the community life.

“Information Transfer” is “the process of transferring skills, knowledge, technologies, methods/ procedures, cultural mores, etc...”, while the general view is that such transfer occurs among members of a family, school, or universities and other institutions. It is important to also include the broader fabric of the community. In many ways, Information Transfer is fundamental to the emergence of economic diversity because it nurtures an environment of innovation necessary to support any movement toward higher paying jobs and, thereby, increased local spending in an ever wider set of commercial and housing options. Some types of information are more dependent on a robust set of networks through which information transfer can happen. Generally, the more knowledge base sought, the more indispensable information transfer becomes. Information Transfer is the vehicle through which change can be addressed and occur more naturally. Peter Drucker, social ecologist, refers to meaningful change as, “change that creates a new dimension of performance.” Information Transfer

becomes this vehicle because it is best suited to transforming invention into innovation. Invention is the idea while innovation is the application. Therefore, without Information Transfer it is unlikely that great and sustained innovation or cultural/ artistic achievement can occur. In addition, Information Transfer brings participants into an arena of knowledge also populated by mentors and institutions making broad networks of communication possible and allowing invention to find application. Below are the stages in the Transfer of Information that should be reinforced by an Economic Development Strategy. These stages include:

**a. Active Dissemination and School**

**Support:** Invention has to be recognized, and the search for invention has to be on-going. Therefore, the network of communication must be more than just a school facility; it must be able to reach out and engage people. This requires inclusion of many network partners who exchange and impart information within numerous venues. An open community, from an information point of view, is where civic activities, some business activities, observations, and information can be accessed. This becomes an on-line public library for use by the community and curated in conjunction with the Town's educational resources. Tutoring and other school supported activities can occur through such an exchange. This would make Westlake truly focused on facilitating academic excellence beyond the walls of the classroom.

- **Tactic C-2-1: Create a Community Education Platform that facilitates information transfer through greater collaboration among participants. The platform should be hosted by the**

**Town. Benefits of being a platform participant include the access to shared information, mentors, nature interpretation, and observation stations with educational experiences that can be viewed. The platform can also allow viewing of books and/ or materials specifically related to school curriculum. The platform should have public and membership only segments.**

**b. Passive presence and information**

**ambiance:** A community that takes on the challenge of holistic education must consider all the opportunities that lie within the fabric of daily experience. The walk to school along trails can provide opportunities for interpretation (historic and natural interpretation). The Town, with its many natural resources, becomes a type of “Discovery Center”.

- **Tactic C-2-2: Identify opportunities in the normal activity patterns of the community to present interpretative information and discovery opportunities.**

**c. Mentoring:**

A living community is a social organ in which members of that community support and facilitate the education and improvement of others. Mentoring is a time tested means of such support. Mentoring as a tangible effort of the community which extends the embrace of community and promotes security. The Town could have visiting mentors, like a writer or a poet, available to conduct sessions in the Academy and public places, much like a Mentor Laureate Program.

- **Tactic C-2-3: Assure the evolutionary development of various community members by establishing a formal mentoring program within the Community. Mentorship should be**

**aimed at introducing other members of the community to new opportunities to grow and assess pathways for the future.**

- d. Education Facilities:** Westlake has been visionary by the establishment of the Westlake Academy and attracting Deloitte University. However, there are other educational venue opportunities for private or church based schools to emerge. All such institutions look for campus locations and should be pursued in a manner similar to Corporate Locations.

- **Tactic C-2-3: Establish a school location program in which the Town considers land and other incentives to attract educational institutions of excellence to the community. All schools locating within Westlake should participate in its educational community efforts (as presented above).**

**Strategy C-3, Land Use Context:** Continuing down the present land use path (as set up by the current zoning patterns), the Town will evolve into two isolated land use districts: one is a residential district lying off the edge of the other, a commercial district. To avoid such community dismemberment and loss of “town-ness”, Westlake must strive for more integrated and meaningful land use relationships. These land use relationships will generally follow three types, as follows:

- a. Organic Relationship:** A town is an organic entity with living components that interact. In order for the Town to be comprehended as a place, it must have recognizable features that define its phenotype as “town”. It must have a hub, an edge, high places, and low places. It must be a composition of

meaningful differentiations that come together as a whole.

- **Tactic C-3-1: Establish and enforce a Land Use Plan that moves the Town toward organic relationships. Further articulate this Land Use Plan with visual demarcations that make its component parts comprehensible. Where current zoning is incompatible with such organic integration, incentivize implementation of the relationships through permitting the exportation and importation of square footage from one area to another. Such transfer of square footage would allow low FAR performance on campus sites without necessitating the loss of development rights, overall.**

**b. Sequential Relationship:** In addition to attaining the features of a Town, it is also important that they occur in appropriate sequential relationships so that the integrity of land use districts is protected from encroachment. Interdependence expressed as positive coexistence reinforces the notion of town and integrates the pastoral with the urban. This concept is rooted in our idyllic notions of human settlement set against natural/pristine landscapes, as seen in 18th century paintings from the Hudson River School and by such painters as Thomas Cole. Sequence is essential to viability and livability.

- **Tactic C-3-2: Establish sequence by several measures. First move important transitional spaces into the public domain via acquisition, easement, or dedication (such as the central open space as shown on the Park, Open Space and Trail Plan). Second, incentivize density and building form transitions from areas of higher**



Figure 166: Hudson River School Paintings

**commercial intensity to areas of residential use.**

- c. Functional Mass Relationship:** For land use integrity to truly exist, it is important that areas of distinct land use type attain sufficient mass that they constitute discrete areas. The current zoning patterns of Westlake show some residential zoning in places that are established to attain a commercial mass, making the residential, so located, vulnerable to encroachment because it will not have sufficient mass. The same is true for some commercially zoned areas that will not have sufficient mass to set themselves apart from the surrounding residential areas, making the commercial use an encroachment.
- **Tactic C-3-3: Incentivize the rezoning of isolated tracts that are inconsistent**

TACTIC ALLOCATION											
Tactics	Initiative Types										
	Physical Project (Public)	Physical Project	Private Leadership	Private Leadership	Ordinance	District Designation	Policy/ Plan	Public Program/ Org.	Private Program/ Org.	Joint Program/ Org.	Incentive/ Agreement
TACTIC A-1-1: Corporate Assessment			X				X	X			
TACTIC A-1-2: Recruitment Agenda			X					X			
TACTIC A-1-3: Corporate Incentives			X					X			X
TACTIC A-1-4: Alliance Leverage			X					X			
TACTIC A-1-5: Relocation Program				X						X	X
TACTIC A-1-6: Fill Input Gaps			X							X	X
TACTIC A-2-1: Supply/ Product Assess				X						X	
TACTIC A-2-2: Corp. Expand Program							X			X	
TACTIC A-2-3: Incubator Business				X				X		X	
TACTIC A-2-4: Public marketplace	X										
TACTIC A-2-5: Stabilize Inputs							X	X			X
TACTIC A-2-6: Alliance Connection				X					X		
TACTIC A-3-1: Street/Land Develop.	X	X	X								
TACTIC A-3-2: Corp. Locate on Trail	X	X	X			X					
TACTIC A-3-3: Corp. on Town Artery	X	X	X			X					
TACTIC A-3-4: Street Estate identity	X	X	X			X	X				
TACTIC A-3-5: Optic Utilities	X	X	X			X		X			
TACTIC A-3-6: Information Platform			X							X	
TACTIC B-1-1: Expand Frontage	X	X	X			X	X				
TACTIC B-1-2: Value Distribution							X				
TACTIC B-2-1: 114 Design Standards			X		X						X
TACTIC B-2-2: Const. Qual. Standard			X		X						X
TACTIC B-2-3: Pub. Activity Space			X		X		X				X
TACTIC B-2-4: Activity Anchors				X						X	X
TACTIC B-3-1: Comm. Micro-climate			X				X				X
TACTIC B-3-2: Pub. Entertainment			X					X			
TACTIC B-3-3: Ped. Ground Plane	X	X	X				X				
TACTIC C-1-1: Image Campaign			X							X	
TACTIC C-1-2: Comm. Activities			X				X	X			
TACTIC C-1-3: Membership Orgs.			X				X	X			
TACTIC C-2-1: Education platform			X				X	X			
TACTIC C-2-2: Education Discovery	X	X	X				X	X			X
TACTIC C-2-3: School Location Prog.				X			X			X	X
TACTIC C-3-1: Land Use Plan			X				X	X			
TACTIC C-3-2: Land Use Sequence			X				X	X			
TACTIC C-3-3: Rezone Isolated Tract				X			X				

Figure 167: Tactic Allocation

**with surrounding use areas and/ or the exportation/exchange of development rights with other tracts.**

## TACTIC APPLICATION

Figure 167 allocates the 35 Tactics, discussed above, among 11 Initiative Types. Initiative Types give greater understanding to the earlier term “initiatives”. The Initiative Types are:

- **Physical Project (Public):** Certain physical projects will be constructed by public means and management, such as streets. Public projects are prioritized through the Town's Capital Improvement Program, thereby exposing the financial allocations required for such projects to public scrutiny and due process. Public projects are fundamental to any economic development plan.
- **Physical Project (Private):** It is the intent of any public investment to leverage private investment and private projects that complete the framework created through public projects. Private projects are physical improvements constructed by private means and methods.
- **Public Leadership:** Certain types of Initiatives require public leadership. Typically these Initiatives are common to many segments of the business community and serve common interests of that community. In these cases, the public leadership assures openness, joint participation, and participation of minority members of the community. However, the broad view of public leadership can move slower and more deliberately than private leadership.
- **Private Leadership:** As stated above, certain Initiatives are more time sensitive and focused toward urgency in a context of change. In these cases, private leadership can be more agile and responsive to the time pressures confronting investment. Therefore, private leadership has a strategic importance to any economic development strategy.
- **Ordinance:** Certain initiatives are conducted under the enablement of ordinance that ties the economic activity to the general police powers of the municipality. This association is critical when public dollars are involved and where particular processes/ standards/enforcements, intended to protect public investment, are applied. Ordinances can range from zoning measures to overlays to district designations (e.g. Tax Increment Financing).
- **District:** Generally set up by ordinance, there are many applicable districts used in economic development. These range from Tax Increment Financing Districts, to Public Improvement Districts, to Business Improvement Districts, Municipal Management Districts, etc.
- **Policy:** Adopted plans and position papers become policy documents that are used to guide the discretionary decision processes of Council as well as the ministerial decision processes of Commission and Staff. Therefore, some of the Economic Development Initiatives are supported by policy.
- **Public Program/Organization:** In order to establish a broad vehicle in which many participants (public and private) can come together around a common

mission, the launching of a program managed by an organization with oversight responsibilities is required. Some of these programs will be public and led by the public. Public organizations typically serve the purpose of review and coordination among many parties and make public leadership possible. Also, some public organizations are recommending bodies that surface critical issues and gather public input for final decisions made by elected officials. Finally, public organizations can have important influence on the allocation of public (or publically managed) money.

- **Private Program/Organization:** Private Organizations are typically management vehicles that provide a venue in which private decision makers can be brought together for the purpose of making collective decisions where common interests are served.
- **Joint Program/Organization:** A joint program/organization is one established through agreement between public and private parties or intergovernmental parties and is usually set up through agreement built around points of common interest. Unlike public organizations that are usually advisory or ministerial, or private organizations that are established to coordinate private decision making, joint organizations are established to represent the needs of participating parties when addressing issues of common interest.
- **Contract/Agreement:** All public/private partnerships will require some form of contract/agreement. Also, such instruments are necessary where cooperative roles must operate in

concert toward a common vision. Agreements include organizational agreements, performance agreements, responsibilities agreement, and/or partnership agreements.

Figure 167 reveals how the above described Initiative Types relate to the 36 Tactics described earlier. It is clear that public leadership is the dominant component of the Strategy, but the organizational structures through which such leadership is exercised is evenly split between public programs/organizations and joint programs/organizations. This illustrates the extent to which this Strategy Plan cannot be executed without joint participation of private business, training institutions, and other governmental interests.

This Economic Development Plan started with the presentation of nine Economic Development Initiatives, aimed at strengthening or creating three Economic Conditions, critical to attaining Economic Outcomes identified by the resident participants in the Public Planning Workshops. These nine Economic Initiatives have been further expanded into 36 Economic Tactics that describe actions that range from physical, to organizational, to programmatic. Finally, these 36 Tactics have been allocated according to type of activity and appropriate leadership as well as physical focus of their effect. Implementation generally addresses funding, administration, and legal vehicles as portrayed in Figure 168.

## SPECIAL CONSIDERATIONS

### **Office-anchored mixed-use development as economic development driver:**

Mixed-use developments have begun to function as economic development

	Private	Public	Public/ Private
Funding Sources	<ul style="list-style-type: none"> <li>• Contributions of business &amp; Industry</li> <li>• Individual Endowment</li> <li>• Fees and Assessments</li> <li>• Appreciation</li> <li>• Loans</li> </ul>	<ul style="list-style-type: none"> <li>• Capture of Ad Valorem Appreciation</li> <li>• Special Assessment</li> <li>• Venue and Special Taxes</li> <li>• Obligation and Revenue Bonds</li> <li>• Fees and Assessments</li> <li>• Operational Funds</li> </ul>	<ul style="list-style-type: none"> <li>• Grants</li> <li>• Abatements</li> <li>• Contributions to Equity</li> <li>• Reimbursement</li> </ul>
Administration	<ul style="list-style-type: none"> <li>• Non-profit Corp.</li> <li>• Interest and/ or Purpose Related Committees, Task Forces, and Organizations</li> </ul>	<ul style="list-style-type: none"> <li>• Agencies/Offices</li> <li>• Commissions</li> <li>• Appointed Committees</li> </ul>	<ul style="list-style-type: none"> <li>• Joint Councils, Boards, Task Forces</li> </ul>
Legal Vehicles	<ul style="list-style-type: none"> <li>• Contracts</li> <li>• Agreements</li> </ul>	<ul style="list-style-type: none"> <li>• Ordinance</li> <li>• Resolution</li> <li>• Policy</li> </ul>	<ul style="list-style-type: none"> <li>• Council approved contacts and agreements</li> <li>• License Agreements</li> </ul>

Figure 168: Implementation Vehicles

catalysts as high-quality employers seek more animated, lifestyle-driven locations in which to locate, primarily to attract talent in an increasingly competitive labor market. Westlake has the potential to incorporate a variety of land uses in a mixed-use environment, including office, for-sale housing, and retail. Mixed-use developments that are driven by office use can be found throughout the metropolitan area and are finding that a core office component has brought accretive benefits to complementary uses such as retail and residential. Legacy Town Center is a 150-acre mixed-use infill town center within a 3,000-acre existing suburban office park. A major employer, Electronic Data Systems, sought to attract employees by creating a town center near the office where they can live, shop, eat, relax, and run errands during lunch. Likewise, after leaving Richardson, Hewlett Packard opened an office at Legacy Town Center because the location and design were attractive for employees, further driving demand for executive-level housing. Trammel Crow Company and One Liberty Properties have developed, among others, the corporate headquarters for Pizza Hut and Yum Restaurants Intl. and are currently building a 225,000-square-foot office building for MedAssets. In addition, Toyota is in the process of relocating its North American headquarters to Legacy after consideration of other locations around the Metroplex. The success of office-anchored mixed-use development at Legacy Town Center has led Trammel Crow to announce plans to develop a 13-story, 341,000 square foot office tower and potentially a second 7-story building.

Office-driven mixed-use development has been an increasingly popular format in the North Texas region. State Farm Insurance will anchor CityLine, a 1.5

million square-foot mixed-use transit development in Richardson, which will incorporate office buildings, apartments, hotels, medical facilities and retail space. Large corporate headquarters can, in many cases, attract tenants and catalyze further development. On the other hand, office properties that fail to provide an attractive, vibrant environment for its users risk losing its tenants to more competitive developments. Case in point: Raytheon, a major aerospace technology firm, has recently announced its plans to relocate from an older office campus to a new state-of-the-art 490,000 square feet building at CityLine.

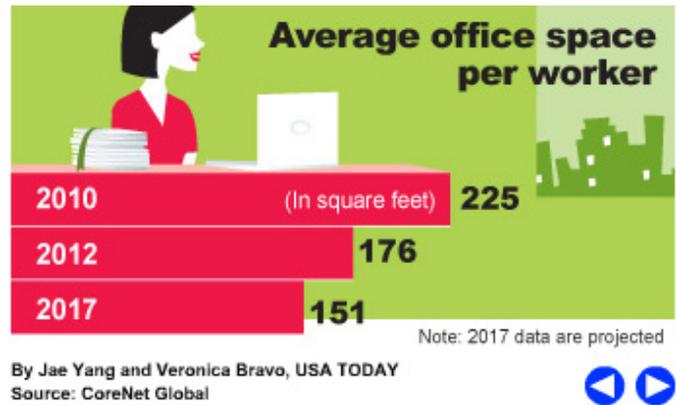
**There are many benefits of mixed-use development to employers and office users.**

The key benefit of mixed-use development is creating spaces that can be used throughout the day and evening for a variety of purposes, including the enjoyment of residents, visitors, and employees. Mixed-use development allows for “Third Places”, those informal non-work/non-residential places where members of the community see each other and interact. Streets, shops, parks and restaurants are also where spontaneous interactions occur with members of the community. They are random, unplanned meetings, and they allow people to exchange information, build relationships, and create social fabric. These social benefits add value to the land and buildings that are the foundation to creating great places. Mixed-use development allows people to walk or bike to their day-to-day destinations instead of needing to drive everywhere. This “live-work-play” element differentiates mixed-use from multi-use.

Broad demographic and societal trends are shaping the future of the office sector.

Employers are choosing to lease less space per employee, from 250 square feet per employee 10 years ago to less than 200 square feet today. Technological progress, too, is changing the way we work with dramatic effects on the office sector. It is now possible to work nearly anytime, anywhere thanks to laptops, smart phones, WiFi, teleconferencing, and more. Employers are accepting, and even encouraging, office sharing and telecommuting. The once solid division between work and personal life is eroding. Gone are the days of driving from the residential suburbs in one part of town to office parks in another. New types of real estate, such as co-working spaces and live-work lofts, have emerged to take advantage of this movement. From WiFi on airplanes to electrical outlets on commuter trains, infrastructure is also evolving to meet the demands of this change in behavior.

Perhaps most adapted to this type of working environment are the Millennials, those under the age of 34. For many companies, attracting and retaining Millennials is challenging. Millennials demonstrate a higher preference for urban locations than did their parents and grandparents. 62% indicate they prefer to live in mixed-use communities where they can be close to shops, restaurants and offices. PlaceMakers, a North American urban planning and design firm, believes that “the new workforce no longer wants to be located in single-use office parks... they want to be located in dynamic mixed-use urban settings where they can mix and mingle, have multiple destinations to eat lunch or have dinner, live nearby, and have the choice to access everything through a pleasant walk and maybe a convenient transit trip.” Millennials are 1.7 times more likely to choose to live



in a city than the youngest Generation X's, and twice as likely to choose to live in a city than older Generation X's and Baby Boomers. This generation is the most diverse and well-educated in history, and they want to work in a place that is exciting and different. Through current housing choices and survey responses, they demonstrate an inclination towards urban locations (not necessarily traditional “downtowns” but rather locations that offer a high level of convenience).

Economic development entities around the nation are beginning to catch onto the realities of hiring in the 21st century. The old assumption that residents follow jobs is simply no longer true. Today it's the exact opposite; knowledge-based employers actively seek to gain a presence in markets where young talent already exists. The modern economy is undoubtedly based on knowledge and information, and knowledge is the driver of productivity and economic growth. Tech, information, and science-based firms seek out young talent, and wherever well-paid workers are, retail and restaurants will inevitably follow. The Marketing Store, a Chicago marketing firm, is one of the many headquarters relocating from suburban Chicago to the Loop to access a better talent pool. The executive vice president of the firm remarks that “as our industry

becomes more digitized, the talent is not in the suburbs, it's downtown." Technology companies in Austin, Texas, including Google and Facebook, have also traded the suburban office park for downtown or suburban mixed-use developments.

**Westlake is opportune for office-driven mixed-use development.** The Dallas-Fort Worth MSA is expected to add an average of over 100,000 jobs annually over the near- and medium-term future. In particular, office employment growth will drive development fundamentals in the SH 114 Corridor due to its concentration of large office users and corporate headquarters. Growth in office employment will also lend support to any efforts to draw a major office user to Westlake. This growth, combined with robust employment in Northeast Tarrant County through 2020 and beyond, will create demand for walkable, office-driven mixed-use development.

Despite the high concentration of employment in and near Westlake, few employees in the area live close to their place of work. Over 80% of people employed within a five-mile radius of Westlake live outside the area. The low proportion of people who live and work in the area demonstrates a structural mismatch between the jobs and housing stock in the area.

Office-driven mixed-use development in Westlake can be market competitive in the region and be a catalyst that could draw other high-quality employers to Westlake, further driving demand for high-end housing alternatives. Strong market fundamentals combined with changing consumer preferences indicate a need for a walkable, dynamic lifestyle option in Westlake. Employers of choice are forgoing suburban office parks for vibrant

lifestyle-driven mixed-use centers that are attractive to young talent. Developers in North Texas have recognized these trends and have, accordingly, begun to offer mixed-use projects with increasing sophistication. Mixed-use, office-driven projects in Westlake could benefit nearby residential neighborhoods by enhancing community identity and broadening choices in housing and neighborhood amenities. In addition, creating a catalytic project (or projects) could help revitalize other properties, such as the Solana Office Park (former IBM offices).

### **Solana Re-Use**

Finding a suitable tenant for the Solana campus will need to employ the Targeted Recruiting Strategy, recommended above, primarily because of the buildings' unusual floor plate sizes that were built custom to the previous occupant's (IBM) specific needs. The buildings are approximately 120 feet wide by 240 feet long, which is much larger than the typical speculative office building that generally offers a lease depth of around 40 feet from the public corridor. These buildings were not designed for multiple tenants but rather a single user, and no exit strategy was planned for once the main tenant vacated the building.

The Solana buildings will require another special user, and the adaptation needs of the buildings will vary greatly depending upon the user. Outside of a single-tenant office user that can utilize an entire floor, or floors, an appropriate and potentially high-value user for Westlake would be an education-focused tenant. Those users would likely require less adaptation to the building and could make use of large amounts of space. Furthermore, as discussed in the next section, an education anchor, specifically focused

### Typical Multi-Tenant/ Speculative Designs

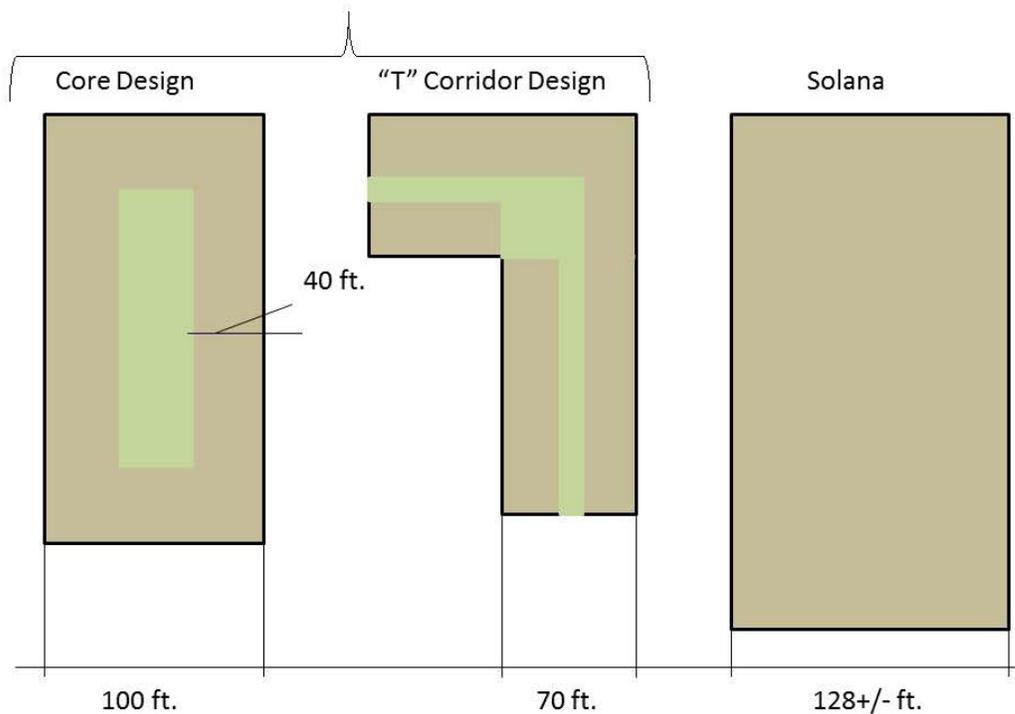


Figure 169: Typical Office Designs vs. Solana Office Design

on higher education, could be a catalyst for other office users seeking locations close to academic research institutions or producers of talent. Large corporate campuses have been converted to education uses in many markets. Most recently, Lone Star College's University Park campus in Houston, adapted Compaq's regional headquarters campus. Existing buildings were converted to education uses, and interstitial spaces throughout the campus are planned to be redeveloped into mixed-use developments accommodating residential, retail, and hospitality. Highland Mall, a failed 1.2 million square foot mall in Austin, Texas, was recently purchased by Austin Community College (ACC) and is being converted to education uses. Like Lone Star College, ACC will ultimately develop the mall's surrounding parking lot to add residential, retail, and student services to

enhance, animate, and elevate the value of the surrounding area.

Other potential uses for the buildings would be "creative" office tenants, which would require significant adaptation of the buildings to produce marketable, attractive product. Creative office space is lacking in the DFW marketplace, and some of the highest caliber employers, particularly high tech companies, are seeking innovative spaces to both attract and retain the best talent. By delivering differentiated creative office space, Westlake would enhance its portfolio of offerings and be able to accommodate a variety of office users that would enhance its capability to cluster target industries more effectively.

The buildings could also be adapted to senior living facilities or medical/wellness

uses. By carving out a courtyard in the center of the building, the floor plate could be shrunk to a level that accommodates senior living units while also allowing substantial light penetration. This would address the need to accommodate Westlake residents seeking to age in place that perhaps need a higher level of care. Furthermore, a wellness-oriented tenant or specialized medicine providers could occupy the buildings and make Westlake a premier destination for wellness and specialized medicine.

A summary of potential users is shown in Figure 170, along with a graphic in Figure 171 that suggests the tradeoffs between the risks and catalyzing effects of each proposed land uses. Adaptive re-use costs need to be better understood to gauge feasibility of residential, medical, and multi-tenant office uses, as the cost of such an effort might be more than market office rents can absorb. The following

factors should also be considered when considering potential users:

- **Predictability:** The Comprehensive Plan and resolution of future land use conflicts move in direction supportive of proposed use.
- **Financing:** City's role in securing financing for project could be critical (pledging public improvements that serves as equity to new owner) and serve to mitigate developer risk, thus making the project more attractive.
- **Market:** growth in high income and workforce populations substantiate demand generators for most uses.

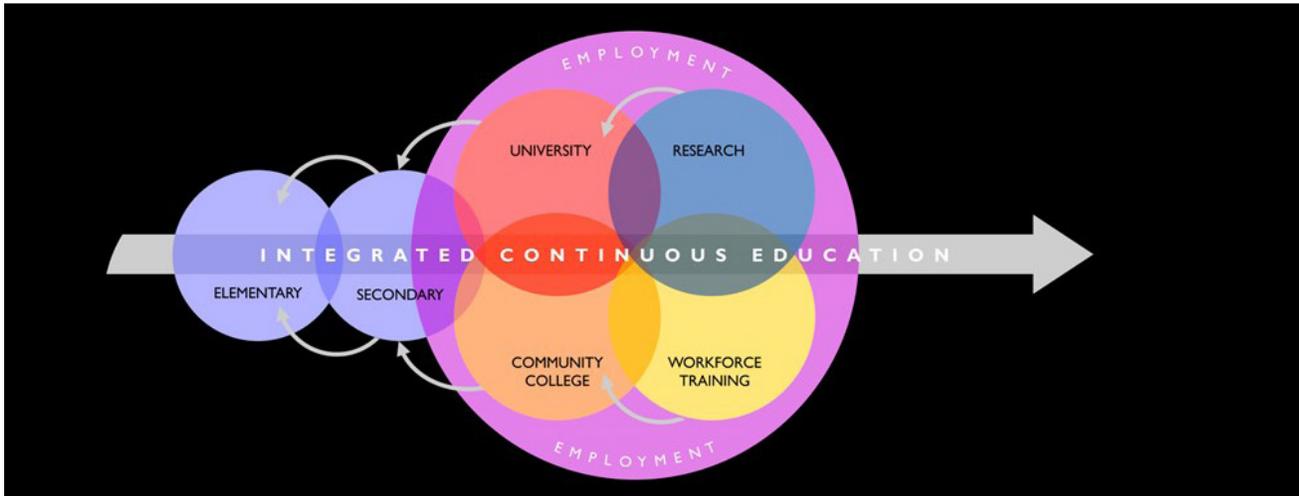
User	Description	Economic Development Potential	Examples	Primary Outcome Economic Conditions Addressed
Single-Tenant Office	Find Tenant that can utilize an entire floor or floors	Enhances area occupancy, provides stability, and contributes to	IBM (former tenant)	<ul style="list-style-type: none"> <li>• Corporate location</li> <li>• Housing</li> <li>• Retail</li> </ul>
Multi-Tenant Office	Adapt building to accommodate multiple tenants, particularly tenants seeking “creative office” space.	<ul style="list-style-type: none"> <li>• Highest caliber employers seeking innovative spaces</li> <li>• Having flexible office programs that can absorb a variety of office programs enhances clustering capabilities</li> </ul>		<ul style="list-style-type: none"> <li>• Corporate location</li> <li>• Housing</li> <li>• Retail</li> </ul>
Senior Living	Courtyard cut-out produces “donut” that accommodates multiple types of residential uses	Addresses need to accommodate Westlake residents seeking to age in place	<ul style="list-style-type: none"> <li>• Continuing Care Retirement Community</li> <li>• Classic Residence by Hyatt</li> </ul>	<ul style="list-style-type: none"> <li>• Housing</li> </ul>
Education	Convert building to education use which can effectively utilize large floorplates and additional FAR availability	New education model that is collaborative with industry – catalyzes demand for additional high-quality corporate entities	Highland Mall – Austin Community College	<ul style="list-style-type: none"> <li>• Corporate location</li> <li>• Housing</li> </ul>
Medical	<ul style="list-style-type: none"> <li>• Center for Wellness</li> <li>• Specialized Medicine Facility</li> </ul>	Become premier destination for specialized medicine or wellness programs	<ul style="list-style-type: none"> <li>• Cooper Fitness Center – Craig Ranch (McKinney)</li> <li>• Aspire Health Spinal – Central Epy &amp; Meadow Road (Dallas)</li> </ul>	<ul style="list-style-type: none"> <li>• Housing</li> </ul>

Figure 170: Potential Users at Solana



Figure 171: Risk and Catalyzing Potential of Potential Users at Solana

**Integrative education is an alternative model to conventional education delivery and career preparation.**



Colleges would like the property's room for growth and FAR, and would like large floor plates.

Figure 172: Integrated Continuous Education

Some of the interstitial open spaces of Solana could be utilized in a more productive way, depending upon the primary user. Like the Lone Star College and ACC models, densifying underutilized land around the buildings could create synergies among uses. If the existing buildings are not developed as office, the current commercial elements should be managed by the hotel or by entities associated with an education user or residential owner and serve as amenities to either user. The campus building arrangement needs to be investigated as it does not really compartmentalize well. The hotel works as a component dependent on the IBM office use but not well as a stand-alone facility. Therefore, the ground plane needs to be redesigned so that uses have more independent ingress/ egress while sharing common pedestrian space.

**Education as an Economic Development**

**Driver:** To meet the growing demands of the region's key employment sectors, strengthen Westlake's market position as a corporate headquarters location, and attract the highest quality employers, Westlake could not only broaden its appeal through mixed-use development, it could also enhance its local production of individuals prepared for the knowledge economy. Cities that have high-achieving K-12 schools, in addition to excellent higher education campuses, are a premium for knowledge workers because they want their children to have access to the finest education. A new multi-layered knowledge center, where lifelong learning and the application of knowledge are its foundation, could be a draw for knowledge workers and generate enormous value for Westlake and the region. As noted in the discussion above regarding Solana's re-use, education is a strong potential user given the ease with which the floor plates can accommodate such users.

**A new model of “K-J” (kindergarten through jobs)** is needed that fully integrates each level of education, developed in the collaboration of pre-collegiate, university, and research institutions, and integrally linked to the growth sectors in DFW’s economy that will ultimately benefit from an educated workforce and the infusion of new knowledge through a robust research infrastructure. A strongly coordinated educational system can ultimately encourage technology transfer and entrepreneurial innovation.

To deliver a model of education integrated with a dynamic urban economy will require a strong interdisciplinary effort, collaborative across the multiple disciplines that comprise the region’s economic development. It will also demand coordinated engagement among private and public sectors, academic and commercial ventures, and economic and urban development planning.

American education today is typically segmented into a linear sequence of steps mainly related to one another through the expectations each has for the students provided to it by its predecessor, expectations often that are unmet. For example, post-secondary institutions are disappointed in the level of preparedness of their incoming students and industry laments the lack of a well-prepared workforce. Attempts at remedying these problems have been made through loose connections among individual institutions: universities recommend curricula for pre-collegiate education; community colleges establish articulation agreements with universities; industry funds training programs; research universities produce spin-offs to industry. More rarely, institutions

and businesses interact through joint programs and activities, and more rarely still, they share functions, personnel, and facilities. These are all steps in the right direction toward better integration of education, but they still reflect the “silos” that characterize such institutions, and, for the most part, have not accomplished the organic assimilation of knowledge production and cultural and economic achievement that will come with being fully embedded in a Knowledge Cluster.

In a Knowledge Cluster, each institution (Westlake Academy, future private institutions, other charter schools, university) could have productive and appropriate engagements with all of the others, in both traditional and non-traditional ways. Private industry is ultimately the outlet for academic research. Private research and development ventures will engage in a collaborative relationship with the university’s research functions and, much like the relationship between Stanford University and Silicon Valley, it will foster the commercialization of the university’s research work product. There could be a range of private venues, from start-up friendly incubators with direct links between entrepreneurs and university researchers, to sophisticated laboratory and office facilities for the scaling-up, and distribution of, primary research knowledge. All of these links would redefine the traditional town-grown relationship by fully connecting the various sectors of the community into a fully functioning whole.

In a world accustomed to stand-alone college campuses and corporate parks sequestered in their separate landscapes, the idea of a fully integrative system requires a different way of thinking about education, commerce, industry, and

“place”. Examples of such places exist in the world, although most of them have evolved over time as institutions and businesses adapt to urban conditions where they have had to engage with their urban context.

Businesses in the new economy will locate wherever there is an abundance of qualified knowledge workers. Qualified knowledge workers are highly mobile, choosing to live where they can have the best life. More and more, this has meant that the young, educated workforce has sought to locate in vibrant mixed-use urban centers, and business has been quick to follow. Technology industry businesses in particular have increasingly sought urban settings for start-up and developed business location, indicating a trend towards better access to talent and more meaningful dialogues, as discussed above regarding Westlake's opportunity to deliver dynamic mixed-use settings to help propel economic development efforts.



## APPENDIX A: ACRONYMS EXPLAINED

### A

ACC - Austin Community College  
ACS - American Community Survey (an on-going U.S. Census Bureau Survey)  
ADA - American Disabilities Act  
ADT - Average Daily Trips

### B

BID - Business Investment District  
BMP - Best Management Practices

### C

CIP - Capital Improvement Plan  
CTR - Circle "T" Ranch

### D

DART - Dallas Area Rapid Transit  
DCTA - Denton County Transit Authority  
DFW - Dallas-Fort Worth  
DL - Deloitte Group (public participation group at the Public Planning Workshops)

### E

ESD - Episcopal School of Dallas  
ESRI - Environmental Systems Research Institute  
EZ - Edge Zone West Group (public participation group at the Public Planning Workshops)

**F**

3F's - Fees, Fines, Finances  
 FAR - Floor Area Ratio  
 FEMA - Federal Emergency Management Agency  
 FY - Fiscal Year

**H**

HCM - Highway Capacity Manual  
 HT - Hilltop Group (public participation group at the Public Planning Workshops)

**I**

ITE - Institute of Transportation Engineers

**L**

LOS - Level of Service

**M**

MF - Multiple Family, as in Multi-Family Residential Development  
 MSA - Metropolitan Statistical Area  
 MSL - Mean Sea Level

**N**

NCTCOG - North Central Texas Council of Governments  
 NRPA - National Recreation and Parks Association

**P**

PID - Public Investment District  
 PD - Planned Development

**S**

SDS -School District Strategies  
 SF - Single Family, as in Single Family Residential Development  
 SH - State Highway, as in State Highway 114  
 SO - Solana Group (public participation group at the Public Planning Workshops)  
 SWOT - Strengths, Weaknesses, Opportunities, and Threats

**T**

TARP - Troubled Asset Relief Program  
 TD - Turner Group (public participation group at the Public Planning Workshops)  
 TIA - Traffic Impact Analysis  
 TIF - Tax Increment Finance  
 TRA - Trinity Railroad Authority  
 TRIO - Themes, Repeats, Inputs, Outputs  
 TXDOT - Texas Department of Transportation

**U**

US - United States, as in US Highway 377  
 USGS - United States Geological Survey

**W**

WR - Westlake Resident (term used by the Academy to identify those eligible for enrollment without a waiting list)

# APPENDIX B: PIPELINE EASEMENT

(as presented in Ordinance 689)

