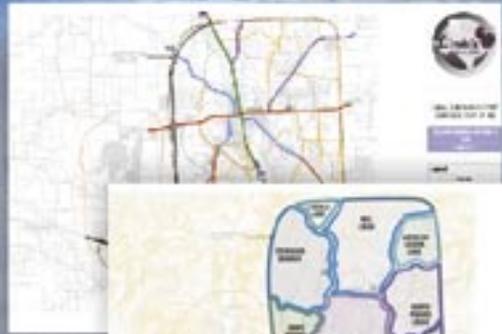


# LINDALE

SECOND CENTURY COMPREHENSIVE PLAN





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





# **Lindale Second Century Comprehensive Plan**

PREPARED BY  
GRESHAM SMITH AND PARTNERS  
RM PLAN GROUP

# Table of Contents

## Narrative

### Chapter 1 - Preface

Introduction	1-3
Lindale's Second Century Comprehensive Plan	1-3
How to Use This Comprehensive Plan	1-3

### Chapter 2 - Existing Context

History of Lindale	2-3
The Multi-Jurisdictional Planning Area	2-4
Existing Development Patterns and Land Use	2-7
Lindale ETJ Existing Land Use	2-8
Existing Transportation/Mobility System	2-8
Existing Utilities	2-11
Existing Parks, Recreation and Open Spaces	2-11
Natural Resources	2-11

### Chapter 3 - Planning Bases

Geographic Setting	3-3
Growth Factors	3-3
City of Lindale Population	3-3
Lindale ETJ Population	3-4
City of Lindale Housing	3-4
Lindale ETJ Housing	3-4
City of Lindale Employment	3-4
Lindale ETJ Employment	3-5
City of Lindale Construction	3-5
Lindale ETJ Construction	3-5

### Chapter 4 - Community Form

Future Land Use Map.	4-3
The Existing Transportation System	4-8
Transportation Planning Elements	4-9
The Street Classification System	4-13
Street Connectivity	4-15
The Transportation and Mobility Plan	4-15
Parks, Recreation and Open Space	4-22
Park Need Assessments and Recommendations	4-27

### Chapter 5 - Community Design Guidelines

Design Guidelines – Downtown	5-3
Design Guidelines- Highway 69	5-15
Design Guidelines – I-20/Hwy. 69 Gateway	5-18

### Chapter 6 - Community Infrastructure & Services

Utility and Community Services Plan	6-3
Utility Planning Methodology	6-3
Existing Water System	6-3
Water Planning Goals and Objectives	6-4
Water Master Plan	6-19
Long Range Strategic Considerations	6-20

### Chapter 7 - Implementation

Fiscal Resources	7-4
Land Use Plan Implementation	7-5
Transportation/Mobility Plan Implementation	7-7
Utility Plan Implementation	7-10
Parks, Recreation and Open Space	
Implementation Strategies	7-12
Review, Evaluation and Update	7-13

Appendix 1 - The Planning Process	
Appendix 2 - Development Approach	
Appendix 3 - Alternative Development Scenarios	
Appendix 4 - Roadway Cross-sections	
Appendix 5 - Loop Rd 49/ I-20 Interchange	
Appendix 6 - Traffic Calming Techniques	



## Illustrations

Figure 1-1 Vicinity Map	1-3
Figure 2-1 Planning Area Map	2-5
Figure 2-2 Existing Land Use Plan	2-9
Figure 2-3 Topographic Map	2-12
Figure 2-4 Northeast Texas River Basins	2-13
Figure 2-5 Natural Drainage Systems	2-15
Figure 2-6 Major Tree Coverage	2-17
Figure 4-1 Future Land Use	4-5
Figure 4-2 Existing Transportation/Mobility System	4-11
Figure 4-3 Relationship between Mobility and Access	4-14
Figure 4-4 Transportation/Mobility Plan System	4-17
Figure 4-5 Existing Parks/Recreation/Community Facilities	4-23
Figure 4-6 Parks/Recreation Open Space Plan	4-29
Figure 4-7 Greenway Corridor	4-31
Figure 4-8 Greenway Trailhead	4-31
Figure 4-9 "Rails to Trails"	4-33
Figure 4-10 Boulevard with Bikeway Section	4-33
Figure 5-1 Downtown Civic Center Plan	5-7
Figure 5-2 Downtown Streetscape Enlargement	5-9
Figure 5-3 Downtown Section AA	5-11
Figure 5-4 Downtown Section BB	5-13
Figure 5-5 US 69 Gateway North Concept Plan	5-16
Figure 5-6 US 69 Gateway South Concept Plan	5-17
Figure 5-7 Lindale Gateway/Entry Map	5-21
Figure 5-8 Gateway Signage Concept 1	5-23
Figure 5-9 Gateway Signage Concept 2	5-23
Figure 5-10 Gateway Signage Concept 3	5-25
Figure 5-11 Gateway Signage Concept 4	5-25
Figure 6-1 Drainage Sub-Basins	6-5
Figure 6-2 Utility Demand Sub-Districts	6-7
Figure 6-3 Existing Water System	6-17
Figure 6-4 Water Master Map	6-21
Figure 6-5 Regional Reservoir Options	6-24
Figure 6-6 Previously Proposed Regional Reservoir	6-25
Figure 6-7 Existing Sewer System	6-27
Figure 6-8 Sewer Master Plan	6-31
Figure 6-9 Community Services	6-39

## Tables

Table 2-1. Existing Land Use, City of Lindale	2-7
Table 2-2. Existing Land Use, Lindale ETJ	2-8
Table 3-1. Total Population	3-3
Table 3-2. Total Housing Units	3-4
Table 3-3. Total Employment	3-5
Table 3-4. Building Permits	3-5
Table 4-1. Land Use Plan Allocations	4-4
Table 4-2. Existing Roadway System	4-10
Table 4-3. Primary Street Design Elements	4-13
Table 4-4. Traffic Calming on Major Streets	4-21
Table 4-5. Park and Recreational Facility Inventory	4-22
Table 4-6. NRPA Park Land Standards	4-25
Table 4-7. Recreational Facility Standards	4-25
Table 4-8. NRPA Standards for the Comprehensive Planning Area	4-27
Table 4-9. Parks and Recreation Facility Demands by Population	4-27
Table 6-1. Water System Inventory	6-4
Table 6-2. Water and Sewer Demand by Drainage Sub-Basin	6-9
Table 6-3. Estimated Water Demands	6-20
Table 6.4. Estimated Sewer Demands	6-29
Table 6.5. Estimated Impervious Surfaces by Drainage Sub-Basin	6-34
Table 6.6. Future Police Demands	6-37
Table 6.7. Future Library Demands	6-37
Table 7-1. Year Capital Improvements-Roadways	7-8
Table 7-2. Implementation Strategies	7-12

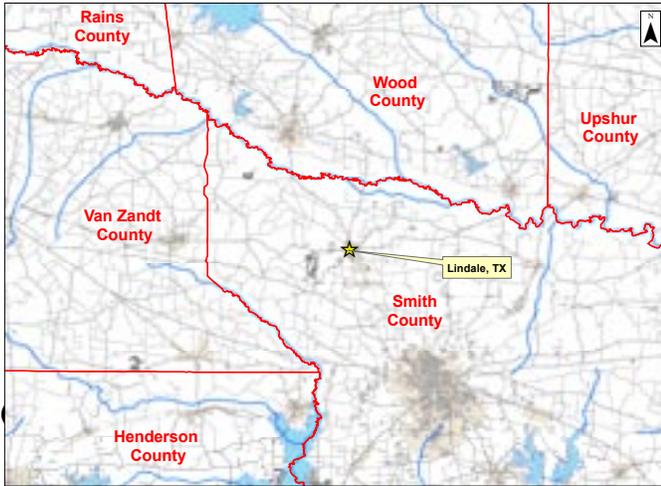


# Chapter 1 - Preface





# Chapter 1 - Preface



Vicinity Map Figure 1-1

## Introduction

In approaching the Centennial anniversary of the community's official incorporation in 1905, the citizens of City of Lindale, Texas embrace their rich heritage while looking ahead with great optimism to the future. Both the City leadership and the citizens of Lindale have exhibited great initiative and foresight by coming together to frame a collective vision of that future, the result being this comprehensive, long-range growth plan for the community that encapsulates the values, aspirations and dreams of its citizens.

This is a plan that offers a bold and exciting vision of the future. It is a plan that first recognizes those fundamental attributes that have made Lindale the great community that is today: an award-winning school system for its children; opportunities for quality housing at a reasonable cost for its residents; for major employers, proximity to regional and national markets via high quality and accessible transportation systems; and perhaps most importantly, a faith-based community that offers a high quality of life for all of its citizens. The resulting comprehensive plan attempts to capitalize on these same attributes to guide Lindale to an even better future.

The community has attempted to articulate its collective vision of the future in this long-range planning document, appropriately entitled Lindale's Second Century Comprehensive Plan.

## Lindale's Second Century Comprehensive Plan-- A New Plan for a Second Century

The year 2005 marks the official 100<sup>th</sup> Anniversary of the Lindale's incorporation as a city. Although settled as early as 1873, it was 33 years later that Lindale had gained sufficient population and economic strength to assume incorporated status.

Lindale's original "plan" was a survey of an area that two years later would have a station served by a new railroad. The first century's growth was shaped by the crossroads associated first with the stagecoach and forest timber trails intersecting with the railroad and later with paved automotive roads.

Appropriately, Lindale's outset on its next 100 years of incorporation begins with a new "Second Century Plan". The Second Century Plan incorporates a grander vision that, while guiding the growth that is associated with the latest "trail" – Interstate 20- is still founded in the exceptional quality of life that has brought people and employment to Lindale for a hundred years.

## How to Use This Comprehensive Plan

Lindale's Second Century Comprehensive Plan has been prepared to serve as a *policy* document to guide decision making processes related to the City's future growth and development. The Plan is *not* intended to be a design document to be followed literally. The Plan identifies the community's collective vision of the future and is structured to serve as a form of guidepost to help guide decisions and actions. As in life, there are often multiple paths and/or means available to achieve a desired end result.

To remain current and viable over time, the Plan must be clear in its stated goals and objectives while affording some degree of flexibility and adaptability in execution. For example, the Community Form maps contained in this Plan that identify the general types of land uses within the community are not intended to be applied literally to specific tracts of land. This Plan is *not* a zoning map for land use. The Plan is simply intended to serve as guidance to the City in making informed zoning decisions. The same principle applies to other ele-



ments of the Plan such as those addressing the community's long-term transportation, utilities or parks and open space systems. The Plan is to be used as a guiding framework for strategic budgeting and implementation initiatives.

Other features of the Plan such as cross section standards for major streets or bikeways are intended to be used as general guidelines as the City formulates and incorporates specific construction standards within implementation documents such as the Zoning Ordinance or Subdivision Regulations. In all instances, the community is to be afforded some discretion and latitude in determining how, when and where to implement the various elements of the Plan. If the Plan is to retain any long term validity and legitimacy, however, the basic tenets of the Plans must be respected.

Lindale's Second Century Comprehensive Plan represents a bold vision for the future. It is a plan that will require a significant commitment of time, energy and financial resources to implement. It is a plan that must be implemented incrementally over time, one step at a time. A viable community is in a state of continual change and evolution over time. The current state and form of the community is the accumulative result of thousands of incremental decisions and actions that have occurred over an extended period of time.

Contemplating the implementation of a comprehensive plan with all of its inter-related elements can appear daunting if viewed in its entirety. The prospect for success is more optimistic, however, if approached as an ongoing series of individual decisions and actions each made to move the community forward in a manner consist with the Plan's stated goal and objectives. If it is necessary to state a primary purpose of Lindale's Second Century Comprehensive Plan, it would be to provide that cohesive framework from which the community can make those incremental decisions in a logical and consistent manner. The trip forward, however, is to be made one step at a time.

# Chapter 2 - Existing Context





## Chapter 2 - Existing Context

LINDALE SECOND CENTURY COMPREHENSIVE PLAN

### History of Lindale

Lindale is on the Missouri Pacific Railroad and U.S. Highway 69 ten miles north of Tyler in northwestern Smith County. The site, originally part of the Thomas Burbridge survey, was settled as early as 1873, when the Lyndale post office opened with John M. Davis as postmaster. The next year the spelling was changed to Lindale, and in 1875 the settlement became a station on the new International-Great Northern Railroad. Five years later the population had reached 300. By 1884 residents had begun shipping cotton and fruit, and the businesses included seven general stores, two groceries, a hotel, two drugstores, a gristmill, and a cotton gin, as well as the services of a gunsmith, a physician, and an undertaker. There were also two churches and a school. Citizens numbered 500 in 1892, when seven flour mills, the East Texas Canning Factory, and a high school had all been constructed. The J. S. Ogburn and Company Canning Factory, specializing in peaches, was established in 1895. On November 1, 1898, the Lindale City school system was established. Two years later fruit and truck farming had become the major sources of income.

In 1902 the population reached 1,200, making Lindale the third largest city in the county. The public school was a large, white, frame building with a bell chapel. A Methodist church and two Baptist churches were functioning. The largest store belonged to Ogburn and Huggins; others were Minton's Racket (general) Store, the T. J. Morris and Company drugstore, the J. A. Thetford and Company general store, and Pruitt and Cawthon's grocery. There was also a gin and mill belonging to J. E. Vickery. Dr. Wall was the town dentist, and Dr. J.

T. Crook was the local physician. School enrollment, under superintendent Oliver Prince Norman, had reached 310, resulting in the construction of new buildings and an increase in staff. That year local women led a successful campaign to make the sale of alcoholic beverages illegal in Lindale.

In 1905 the town was incorporated. In 1914 it had 700 inhabitants, and the *Lindale Reporter* was published on a weekly basis. The community also had restaurants, millinery and notions stores, two banks, and the Brazelton Prior Lumber Company. By 1921 the second hard-surface road in the county, the Jim Hogg Highway, had been constructed from Tyler to Lindale. During the Great Depression the town was kept alive by the presence of nearby Civilian Conservation Corp Camp 896, and farmers in the area participated in the Duck Creek Project, searching for ways to prevent soil erosion. In 1936 the school system had an elementary school with two teachers for black children and a school with twenty-two teachers for white children. Postwar prosperity brought a population increase to 1,101. Lindale Boys' Ranch was dedicated in 1949, and by 1952 the surrounding schools had been consolidated into the Lindale Independent School District. A new post office was built in 1959. Maps for the following year showed five churches, a downtown business district, and a sizable school. In 1965 the population was 1,285. Lindale continued to grow, particularly in the 1970s, because of its proximity to Tyler and Interstate Highway 20, the fertility of the soil, and the educational facilities. In 1989 the town reported 2,671 residents and 113 businesses. In 1990 the population was 2,428.

**Vista K. McCroskey**



*BIBLIOGRAPHY: Chronicles of Smith County, Spring 1966, Fall 1967, Spring 1968, Fall 1969, Summer 1978. Edward Clayton Curry, An Administrative Survey of the Schools of Smith County, Texas (M.Ed. thesis, University of Texas, 1938). Smith County Historical Society, Historical Atlas of Smith County (Tyler, Texas: Tyler Print Shop, 1965). Donald W. Whisenhunt, comp., Chronological History of Smith County (Tyler, Texas: Smith County Historical Society, 1983). Albert Woldert, A History of Tyler and Smith County (San Antonio: Naylor, 1948). Vista K. McCroskey*

Copyright © The Texas State Historical Association



### The Multi-Jurisdictional Planning Area (Figure 2-1)

This Second Century Plan is an initiative of the City of Lindale. Its vision is guided by the desire to create a complementary land use and infrastructure pattern among the multiple governmental jurisdictions that are associated with the planning area. The close proximity of communities and their joint access along I-20 provides an opportunity for a unified effort. In the absence of zoning powers in the unincorporated areas, a multi-jurisdictional approach is the primary alternative to unwonted development. The following governmental entities are affected.

- City of Lindale: incorporated area and extra-territorial jurisdiction (ETJ)
- City of Tyler: extra-territorial jurisdiction
- City of Hide-A-Way Lake: extra-territorial jurisdiction
- Smith County: unincorporated area

The planning area encompasses approximately 17,664 acres. The area is delineated as follows.

On the west, the planning area begins just west of the I-20 and Hwy. 849 interchange. Next it follows Hwy. 849 until intersecting with the route of the proposed Loop Road 49. It then follows Loop Road 49 until the proposed interchange at Hwy. 69.

On the north, the planning area extends from the proposed Loop Road 49 and Hwy. 69 interchange eastward to near the intersection of Hwys. 4157 and 498.

On the east, the planning area continues from the intersection of Hwys. 4157 and 498 southward along Hwy. 498 to its terminus. It then parallels the east side of Jim Hogg Road until the I-20 and Jim Hogg Road interchange.

On the south, the planning area continues from the I-20 and Jim Hogg Road interchange in a westerly direction that parallels I-20 at a distance of approximately one mile south. It then concludes just west of the I-20 and Hwy. 849 interchange.

The existing City of Lindale encompasses approximately 3000 acres of land area. The current Lindale ETJ comprises an additional 8200 acres, for a total of 11,200 acres. This represents

approximately 63 percent of the 17,664 acre multi-jurisdictional planning area. The remainder is in the ETJ of Tyler and Hide-a-Way Lake or the unincorporated county.



*Planning Area Map Figure 2-1*





**Existing Development Patterns and Land Use (Figure 2-2)**

The incorporated area of Lindale is approximately 3006 acres in size. The total area is broken into ten major land use classifications that are identified as follows.

- Commercial
- Farmstead
- Industrial
- Institutional
- Mixed-Use
- Public
- Recreation
- Residential
- Transportation/Distribution
- Undeveloped

*Table 2-1 Existing Land Use  
City of Lindale 2004*

Type	Acres	%Total
Commercial - Total	363.2	12.1
Convenience	54.2	1.8
Thoroughfare	309.0	10.3
Farmstead - Total	153.0	5.1
Industrial - Total	0.0	0.0
Institutional - Total	142.1	4.7
School	127.8	4.3
Worship/Other	14.3	0.5
Mixed Use - Total	73.8	2.5
Public - Total	3.2	0.1
Recreation - Total	16.2	0.5
Park	16.2	0.5
Other	0.0	0.0
Residential - Total	678.0	22.6
Single-Family	652.5	21.7
Multi-Family	25.5	0.8
Transportation/Distribution - Total	145.7	4.8
Undeveloped - Total (Agricultural, Open Space, Other)	1081.0	36.0
<b>Total</b>	<b>3006.0</b>	<b>100.0</b>

The largest of the ten land uses is Residential, with approximately 678 total acres or 22.6 percent of the total. Residential is broken into two sub-classifications. Single-Family residential has approximately 652 acres or 21.7 percent of the total, and Multi-Family residential has approximately 25.5 acres or 0.8 percent.

The second largest of the ten land use classifications is Undeveloped, with approximately 1081 acres or 36.0 percent of the total. This includes Agricultural, Open Space or Other use. Farmstead is defined as property of five or more acres with a principal residence and may involve some agricultural and/or animal husbandry activity adjoining.

Commercial land use is the third largest with approximately 363.2 total acres or 12.1 percent of the total. Commercial includes two sub-classifications: Convenience, with approximately 54.2 acres or 1.8 percent of the total, and Thoroughfare, with approximately 309.0 acres or 10.3 percent.

The fourth largest land use is Farmstead, with approximately 153 acres or 5.1 percent of the total.

The Target Distribution center at the edge of the city limits is what makes Transportation/Distribution the fifth largest land use classification. It has approximately 145.7 acres or 4.8 percent of the total.

Institutional land use is the sixth largest with approximately 142.1 acres or 4.7 percent of the total. Institutional is broken into two sub-classifications: School, with approximately 127.8 acres or 4.3 percent, and Worship/Other, with approximately 14.3 acres or 0.5 percent.

The seventh largest land use classification is Mixed-Use, with approximately 73.8 acres or 2.5 percent of the total. This use is associated with Downtown.

Recreation is the eighth largest land use with approximately 16.2 acres or 0.5 percent of the total. Public land use is the ninth largest with approximately 3.2 total acres or 0.1 percent of the total.



Existing land use associated with the Industrial classification is too small to contribute to the total.

**City of Lindale Residential Density.**

The total number of dwelling (housing) units per acre is an indication of residential density. Within the city limits the residential density is approximately 1.5 dwelling units per acre.

**Lindale ETJ Existing Land Use**

The unincorporated area within one-half mile of the city of Lindale’s boundaries is established by state law as Lindale’s Extra-Territorial Jurisdiction (ETJ). This area is approximately 8203 acres in size and it can be broken into the same ten land use classifications for comparison with the city land use. Six of the ten classifications account for all of the land use within the ETJ.

The largest land use in the ETJ is Undeveloped (Agricultural, Open Space, Other) with approximately 4081 acres or 49.8 percent of the total.

*Table 2-2 Existing Land Use  
Lindale ETJ 2004*

ETJ Land Use Type	Acres	%Total
Commercial - Total	247.5	3.0
Convenience	0.0	0.0
Thoroughfare	247.5	3.0
Farmstead - Total	1540.0	18.8
Industrial - Total	0.0	0.0
Institutional - Total	28.5	0.3
School	19.7	0.2
Worship/Other	8.8	0.1
Mixed Use - Total	0.0	0.0
Public - Total	41.8	0.5
Recreation - Total	0.0	0.0
Park	0.0	0.0
Other	0.0	0.0
Residential - Total	1593.0	19.4
Single-Family	1593.0	19.4
Multi-Family	0.0	0.0
Transportation/Distribution- Total	0.0	0.0
Undeveloped - Total (Agricultural, Open Space, Other)	4081.0	49.8
Total	8203.0	100.0

Source: RM Plan Group, Nashville

Estimates are taken from aerial photos and may vary in interpretation of use and in acreage. Use locations as shown on the Existing Land Use Map are generalized.

Farmstead is the second largest land use with approximately 1540 acres or 18.8 percent of the total.

The third largest land use is Single-Family Residential with approximately 1593 acres or 19.4 percent of the total.

The remaining land use in the ETJ is broken into Commercial (approximately 247.5 acres or 3.0 percent), Public (approximately 41.8 acres or .5 percent) and Institutional (approximately 28.5 acres or 0.3 percent).

**Lindale ETJ Residential Density**

The total number of dwelling (housing) units per acre is an indication of residential density. Within the limits of the ETJ the residential density is approximately 0.8 dwelling units per acre.

**Existing Transportation/Mobility System**

The original settlement of what is now the City of Lindale was established along a regional rail line. Today, the interstate highway system has usurped the railroad as the primary means of person travel and the transportation of goods. The principle roadway systems serving Lindale are I-20 and US 69. As a general rule, US 69/Main Street forms the backbone of the community’s street system, running north and south through the heart of the City. US 69/Main Street passes directly through the downtown area. State Highway 16 is a major east/west roadway that also passes through the heart of the downtown area.

US 69, Jim Hogg Road and Harvey Road all intersect with I-20 via full access interchanges. The I-20 / Us 69 interchange serves as the primary gateway to the City. The ever increasing volumes of both local and regional traffic forced to use this four lane State route are generating more and more concerns that additional measures need to be taken to resolve growing traffic problems within the community. The City has prepared a long range Thoroughfare Plan to guide the future construction of arterial and collector streets throughout the community.

The Texas Department of Transportation (TXDOT) and the City are currently in discussions regarding the construction of a new east/west connector road between Jim Hogg Road to



*Existing Land Use Plan Figure 2-2*





the east and Harvey Road to the west, with a grade separated intersection at US 69.

### Existing Utilities

The City of Lindale is the sole provider of sanitary sewer service within the comprehensive planning area. The City's current sewer service area is generally located within the southerly and easterly sectors of the community. The City currently has the capacity to treat approximately 500,000 gallons of wastewater per day. All new development within the City limits must be served by sanitary sewer. New development areas proposed to be served by sewer must be annexed into the City. The marketing benefits associated with offering new homes on a public sewer system often results in land developers petitioning the City to annex new residential subdivisions.

Water service to the comprehensive planning area is provided by four separate water providers: the City of Lindale; The Lindale Rural Water District; the Crystal Water District and the Duck Creek District. The City of Lindale currently has the capacity to provide approximately 2,000,000 gallons of water per day via four well-heads. The City currently sells water to the Lindale Rural and Duck Creek districts. According to local officials, there are no major water service problems within the City of Lindale at the current time. However, the continued installation of new water service lines with 2" and 4" diameters within the more rural areas of the ETJ is a matter of concern to City officials since those areas may eventually be annexed into the City. The multiple water jurisdictions serving the various sectors of the community often presents complications in City annexation processes.

### Existing Parks, Recreation and Open Spaces

The community is currently served by two City Parks. The 100 acre Faulkner Park, currently located north of the City limits, contains opportunities for soccer, tennis, basketball, volleyball, walking, fishing and concessions. Pool Park contains baseball and playground facilities along with a community center building.

### Natural Resources

According to the Federal Emergency Management Agency, there are no officially designated flood prone areas within the Lindale comprehensive planning area. There exist, however,

selected areas throughout the community that experience occurrences of localized flooding, presumably due to substandard drainage conveyances.

The topographic relief (Figure 2-3) of the planning area can be characterized as relatively flat to gently rolling. One of the highest points in Smith County is located between US 69 and Jim Hogg Road, north of I-20. The northwest sector of the planning area is considered by many local residents as the most attractive land form in the community.

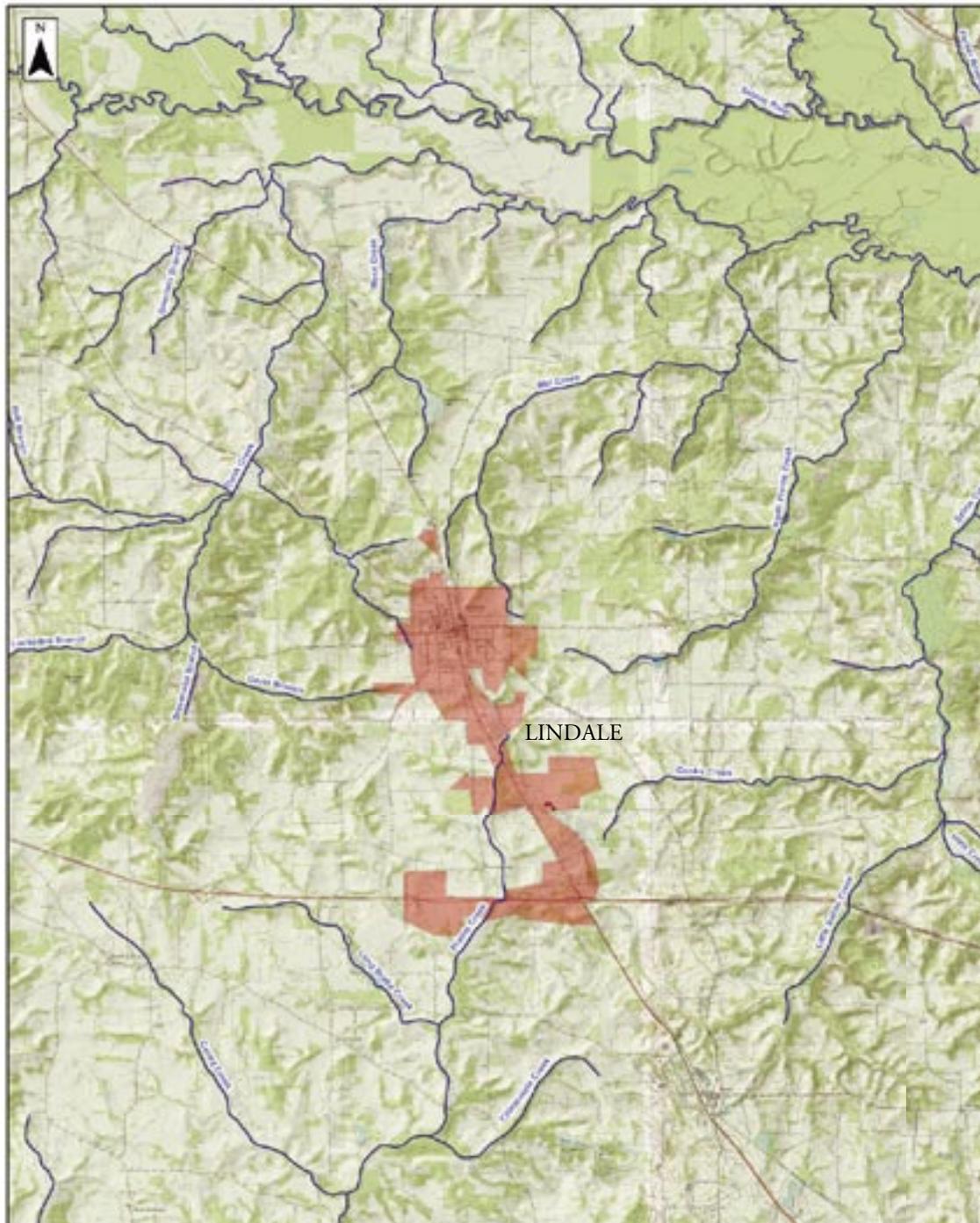


Figure 2-3 Topographic Map



*Figure 2-4 Northeast Texas River Basins*





*Figure 2-5 Natural Drainage Systems*





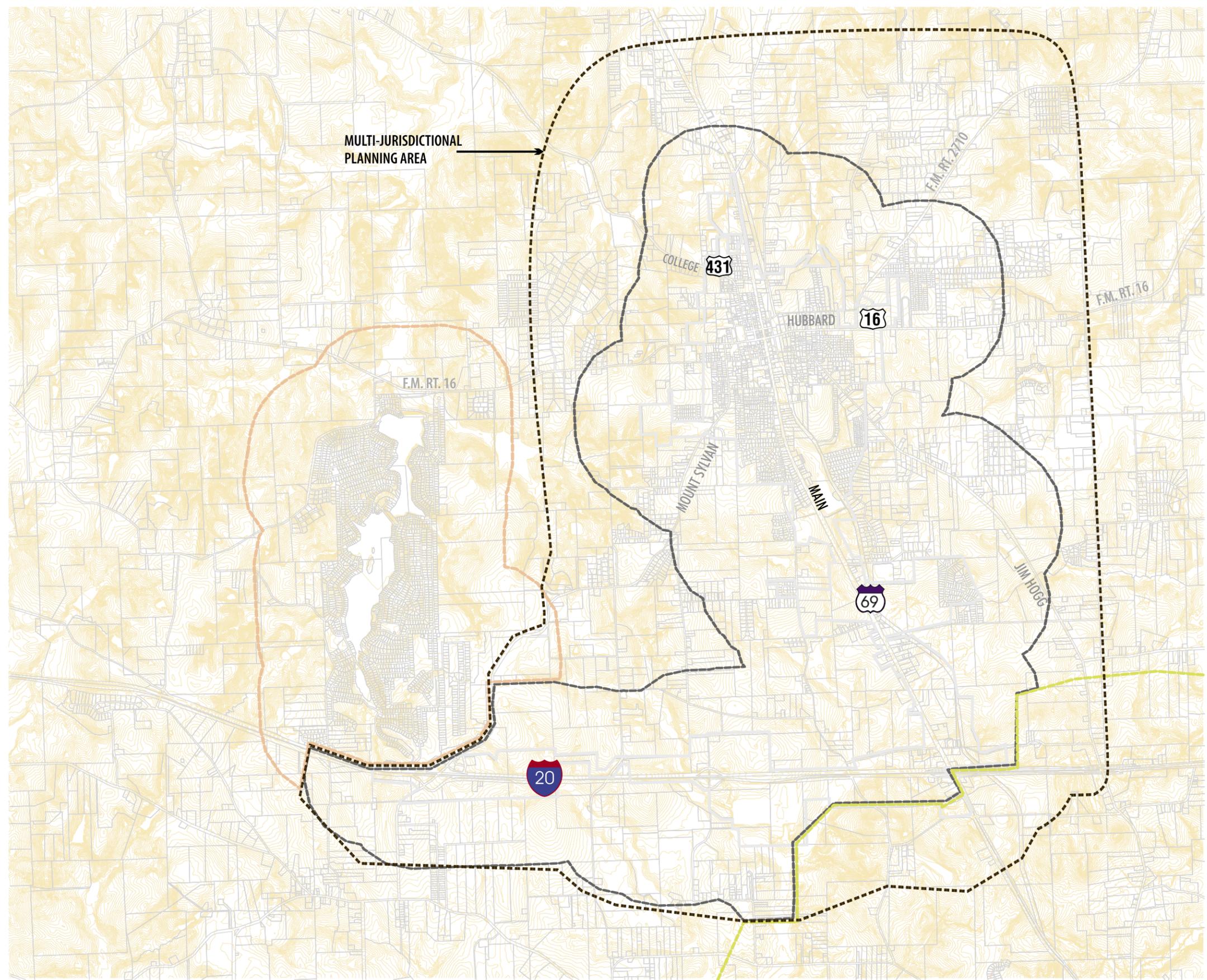
*Figure 2-6 Major Tree Coverage*





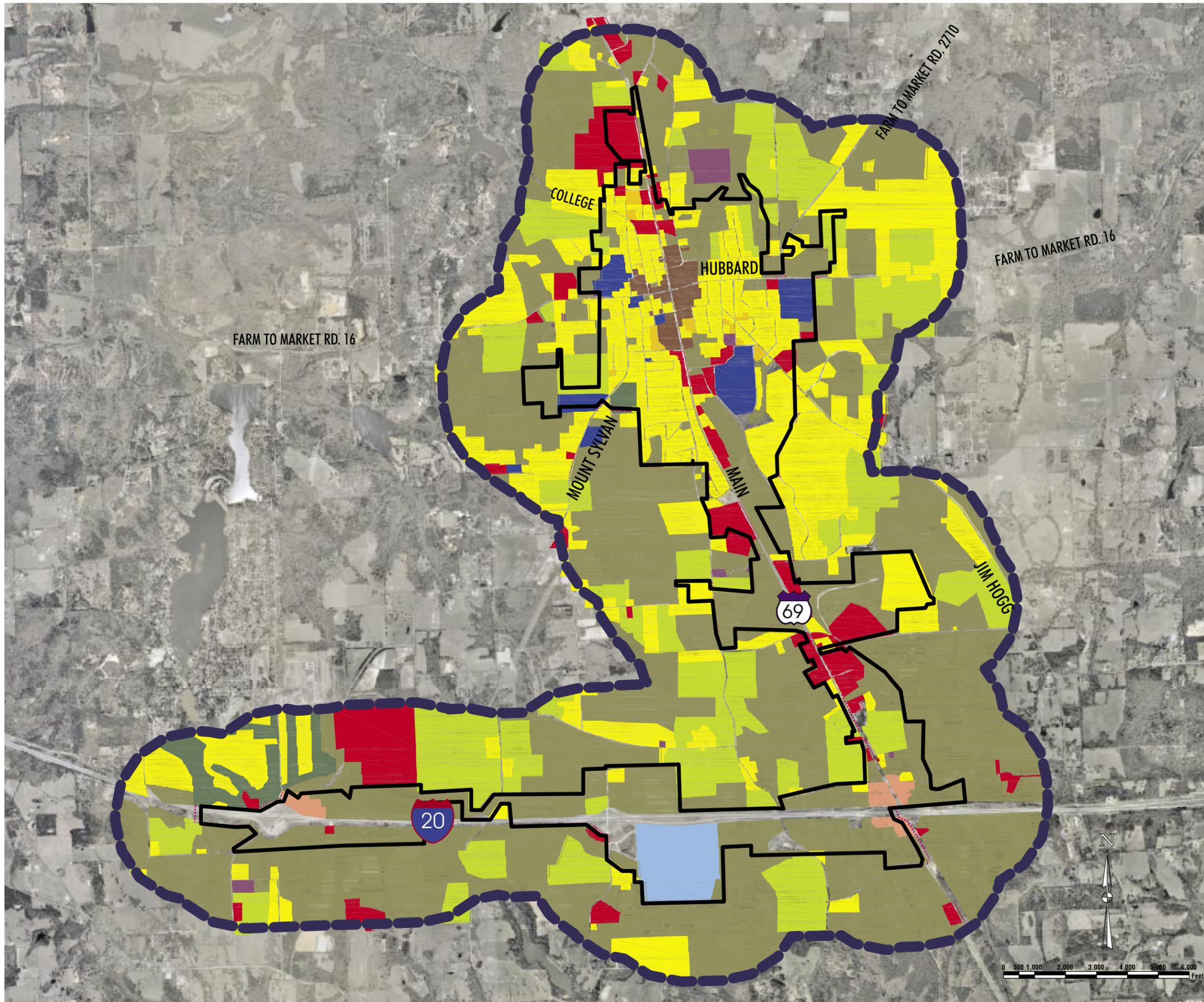
# LINDALE SECOND CENTURY COMPREHENSIVE PLAN

MULTI-JURISDICTIONAL PLANNING AREA  
Figure 2-1



- Legend**
- Parcel Lines
  - Lindale City Limits
  - Lindale ETJ Boundary
  - Topography
  - ETJ - Tyler
  - ETJ - Hawl





**LINDALE SECOND CENTURY  
COMPREHENSIVE PLAN**

**EXISTING LAND USE**  
Figure 2-2

**Legend**

- Lindale City Limits
- ▭ Lindale ETJ / Planning Area

**Land Use Categories**

- Single-Family
- Multi-Family
- Mixed Use
- Thoroughfare Commercial
- Convenience Commercial
- Transportation/Distribution
- School
- Worship
- Public
- Recreational
- Undeveloped

NOTE: THE INFORMATION SHOWN HEREIN HAS BEEN PROVIDED BY THE SMITH COUNTY APPRAISAL DISTRICT. THIS MAP WAS PREPARED BY GRESHAM SMITH & PARTNERS FOR ITS USE ONLY. NO WARRANTY, GUARANTEE, OR REPRESENTATION IS MADE BY GRESHAM SMITH & PARTNERS AS TO THE ACCURACY.

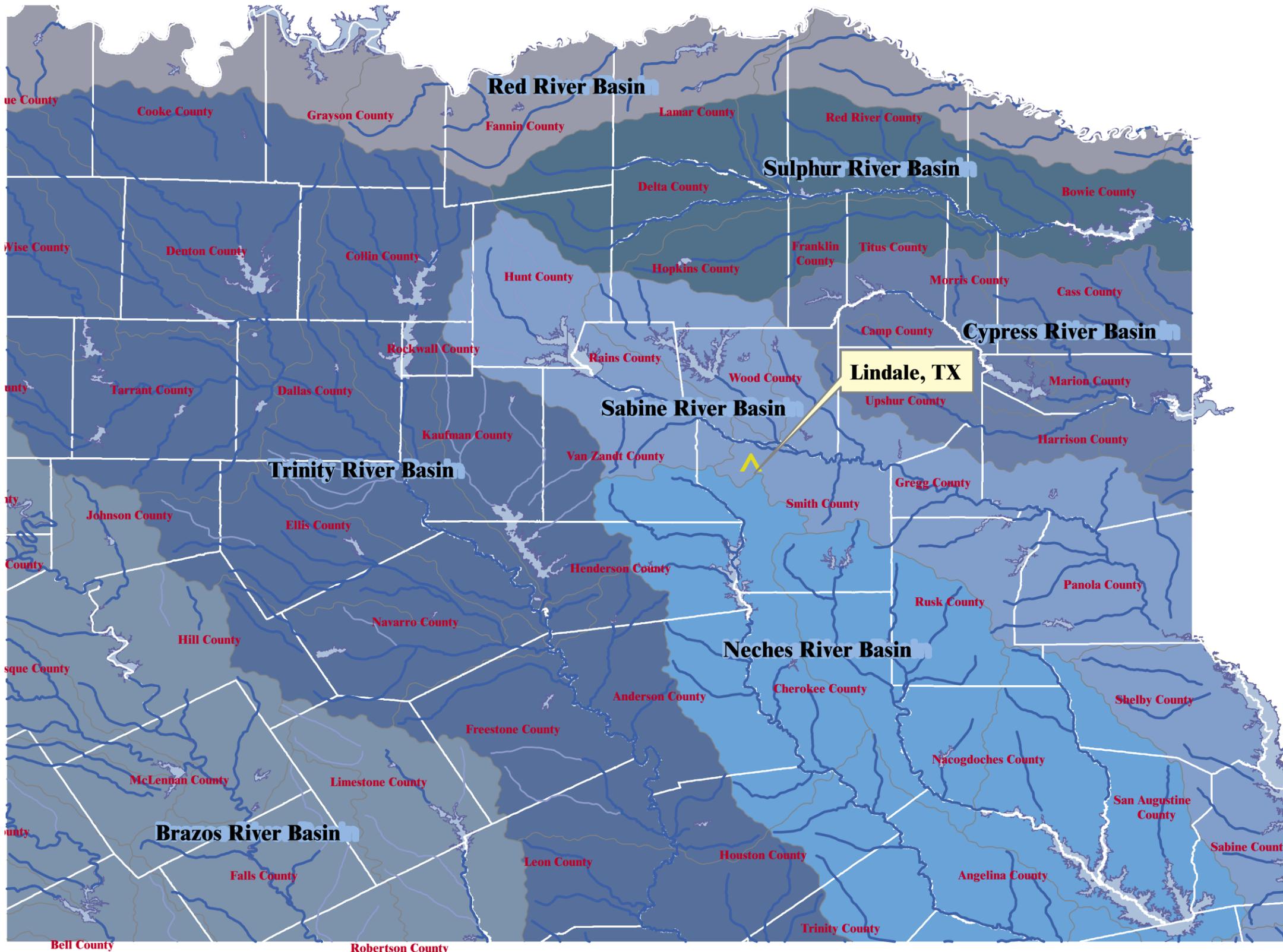




LINDALE SECOND CENTURY  
COMPREHENSIVE PLAN

NORTHEAST TEXAS  
RIVER BASINS  
Figure 2-4

**Legend**



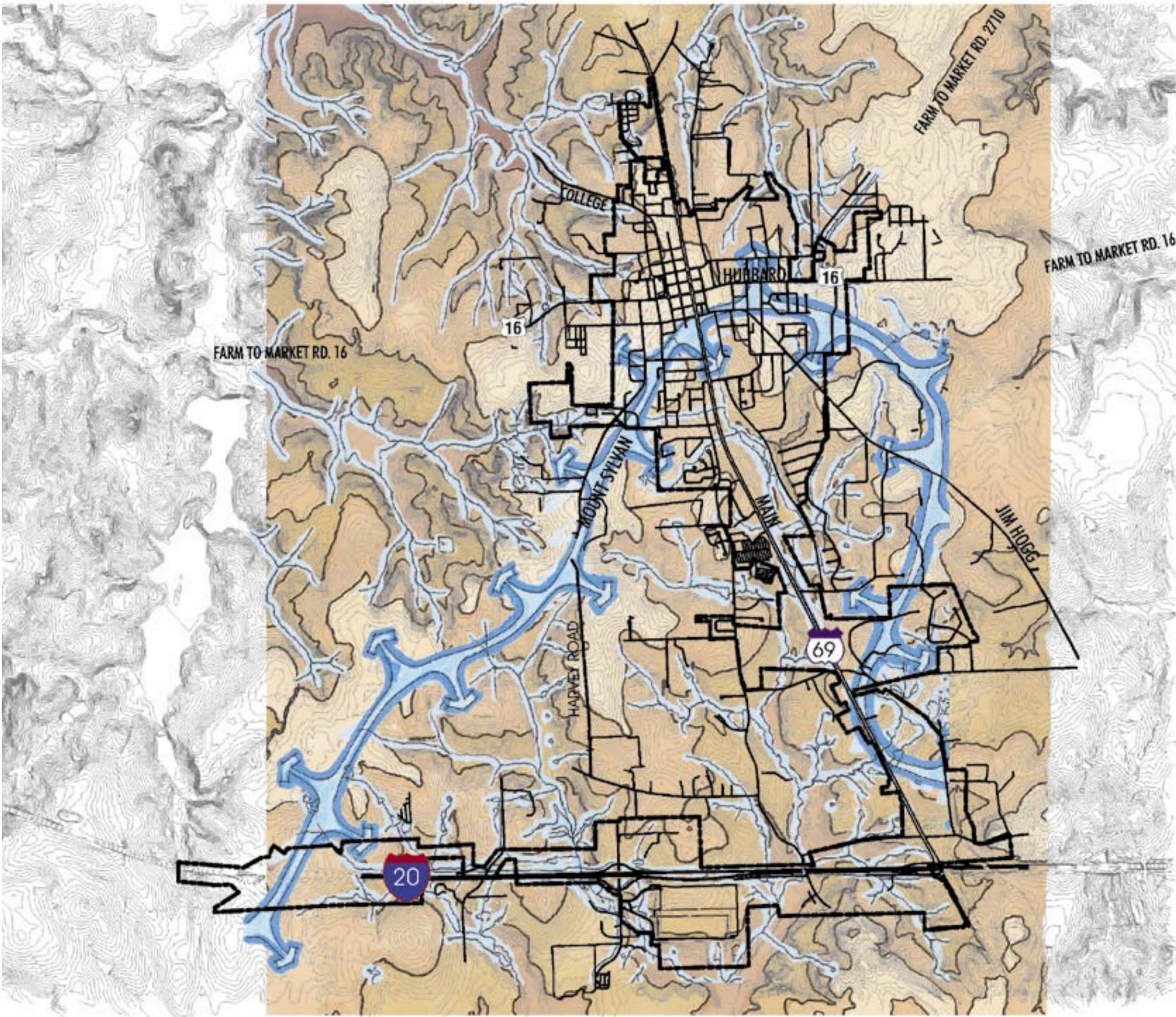
**Northeast Texas  
River Basins**





LINDALE SECOND CENTURY  
COMPREHENSIVE PLAN

NATURAL  
DRAINAGE SYSTEMS  
Figure 2-5



Legend

--- Lindale City Limits

Watershed/Drainage

— Roads

- ≥600'
- 550'-599'
- 500'-549'
- 450'-499'
- 400'-449'
- 350'-399'
- <350'

NOTE: THE INFORMATION SHOWN HEREIN HAS BEEN PROVIDED BY THE SMITH COUNTY APPRAISAL DISTRICT. THE MAP WAS PREPARED BY GRESHAM SMITH & PARTNERS FOR ITS USE ONLY. NO WARRANTY, GUARANTEE, OR REPRESENTATION IS MADE BY GRESHAM SMITH & PARTNERS AS TO THE ACCURACY.



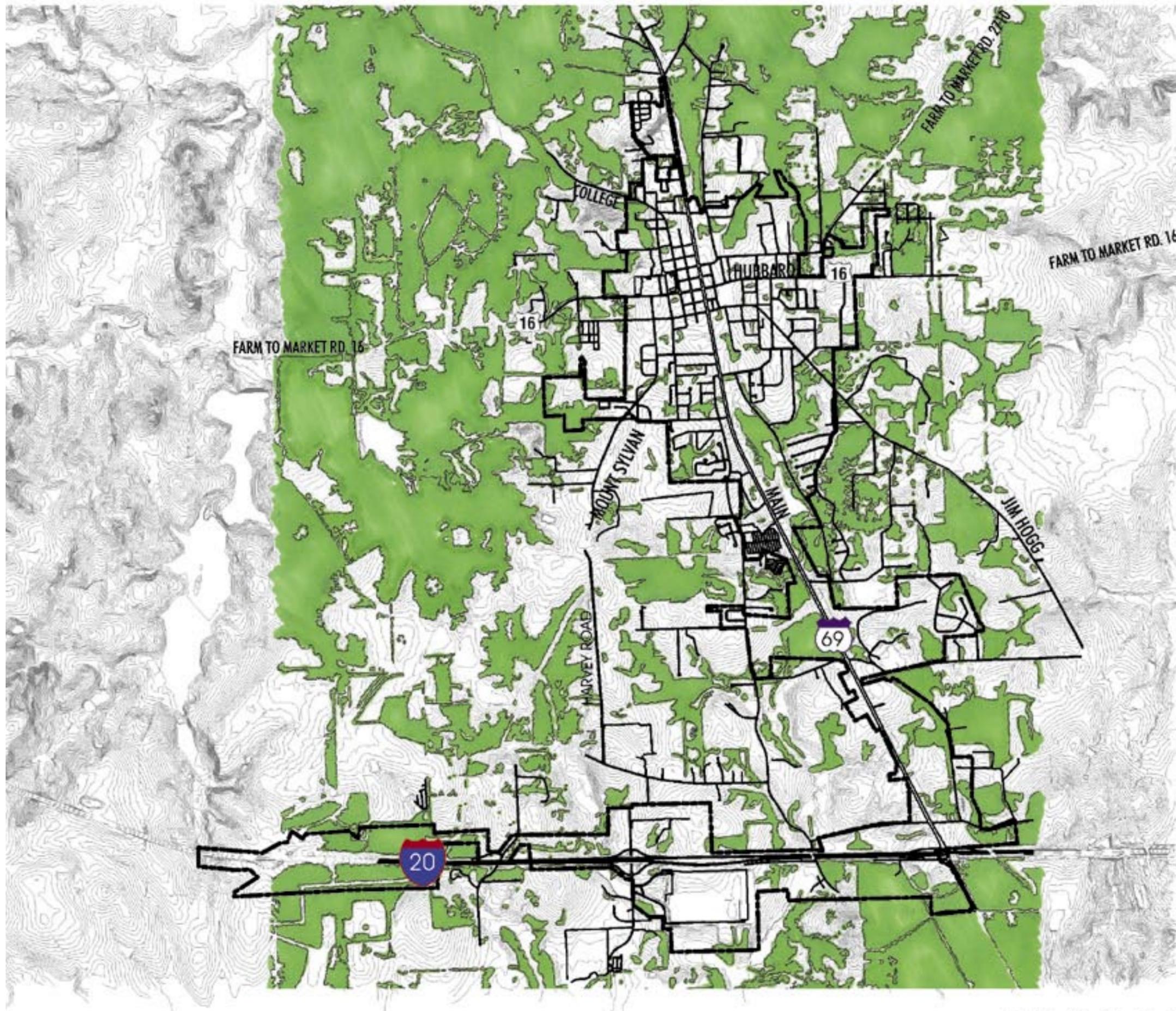
6/1/04





LINDALE SECOND CENTURY  
COMPREHENSIVE PLAN

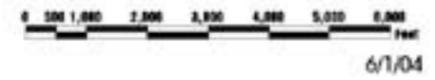
MAJOR TREE COVERAGE  
Figure 2-6



Legend

- -- -- -- -- Lindale City Limits
- Roads
- Vegetation

NOTE: THE INFORMATION SHOWN HEREIN HAS BEEN PROVIDED BY THE SMITH COUNTY APPRAISAL DISTRICT. THIS MAP WAS PREPARED BY GRESHAM SMITH & PARTNERS FOR ITS USE ONLY. NO WARRANTY, GUARANTEE, OR REPRESENTATION IS MADE BY GRESHAM SMITH & PARTNERS AS TO THE ACCURACY.



# Chapter 3 - Planning Bases





# Chapter 3 - Planning Bases

## Growth Factors: Population, Housing, Employment and Construction

### Geographic Setting

Smith County is associated with the 14-county East Texas Council of Governments (ETCOG) region. The region encompasses an area from the Dallas urban fringe to the secondary Tyler urban center. Interstate Highway 20 (I-20) connects the two communities over a distance of approximately 90 miles.

Historically Smith County and the city of Tyler have been the population and economic hub of the eastern portion of the region. Smith County represents 23 percent of the region’s population and 33 percent of its employment. Tyler represents 11 percent of the region’s population and 25 percent of its employment.

Around 1995, it became evident that an additional population and employment center was emerging in northern Smith County in conjunction with the city of Lindale. Due in part to its immediate connection with I-20, Lindale represents 1.7 percent of the county’s population and 5 percent of its employment. Between 1995 and 2000, Lindale accounted for 11 percent of Smith County’s employment growth and 5

percent of the region’s employment growth. The opening in 1998 of the commercial distribution center, Target, was the principal factor for Lindale’s increase.

### Growth Factors

The year 2025 is the planning horizon for Lindale. In dimensioning the 20-plus-year development requirements for the community, the following growth factors are considered.

- Population
- Housing
- Employment
- Construction

Estimates for the five-year periods of 2005, 2010, 2015, 2020 and 2025 are based on recent trends. In the case of Lindale and the unincorporated area immediately surrounding the city, existing population, housing and employment are limited and associated with relatively recent development. The smaller base and the shorter trend, increases the difficulty in making long-term estimates.

The following population, housing and employment estimates for Lindale and the unincorporated area immediately surrounding the city are provided in a range. The range includes estimates based on a continuation of recent trends and on a higher growth model. Long-term development may vary depending on the economic situation and public policies at the time. In addition, annual growth rates for the period 2000–2025 are shown as an average. Actual rates for any year may vary.

### City of Lindale Population

Between 1990 and 2000, Lindale’s population increased from 2,428 to 2,954, an average change of 53 per year or 2.2 percent. Based on residential building permits since 2000, the city’s population is continuing to increase by approximately 200 per year or 6 percent. Based on ETCOG estimates for the same period, Smith County’s total population is continuing to increase by approximately 1,380 per year or 4 percent.

Assuming a comparable or higher growth rate, Lindale’s population could reach 8,000-10,000 by the year 2025. The estimate represents an increase by approximately 200-280 per year or 6-9 percent. Based on ETCOG estimates for the same period, Smith County’s total population could reach

Table 3-1 Total Population

Lindale, ETJ, Smith County & ETCOG 1990 - 2025

Year	Lindale	Lindale ETJ	Smith County	ETCOG
1990	2,428	1,400	151,309	652,423
2000	2,954	2,150	174,706	745,180
2005	3,900 - 4,400	2,725 - 3,100	181,584	775,337
2010	4,800 - 5,800	3,300 - 4,100	188,462	805,494
2015	5,900 - 7,200	3,900 - 5,100	196,096	836,562
2020	7,000 - 8,600	4,500 - 6,100	203,729	867,629
2025	8,000 - 10,000	5,000 - 7,000	211,687	894,473

Source: U.S. Census 1990 & 2000

Texas State Data Center for Smith Co. & ETCOG 2005, 2010, 2015, 2020 & 2025

RM Plan Group for Lindale 2005, 2010, 2015, 2020 & 2025

RM Plan Group for Lindale ETJ 1990, 2000, 2005, 2010, 2015, 2020 & 2025



an increase by approximately 1,480 per year or 0.8 percent. The projections reflect Lindale continuing to increase its share of Smith County’s total population growth. Variables in the projections include Lindale’s ability to sustain growth in its employment base and provide additional services for its residential base.

**Lindale ETJ Population**

The unincorporated area within one-half mile of the city of Lindale’s boundaries is established by state law as Lindale’s Extra-Territorial Jurisdiction (ETJ). Between 1990 and 2000, the ETJ’s population increased from approximately 1,400 to 2,150, an average change of 75 per year or 5.3 percent. Based on residential construction estimates since 2000, the ETJ’s population is continuing to increase by approximately 115 per year or 5 percent.

Assuming a growth rate similar to Lindale’s, the ETJ’s population could reach 5,000–7,000 by the year 2025. The estimate represents an increase by approximately 114-194 per year or 5-9 percent.

**City of Lindale Housing (Table 3-2)**

As of the year 2000, Lindale had a total of 1,186 housing units, mostly single-family residential. The total represented an increase of 205 from the 981 units in the year 1990, an annual average of 21 units or 2 percent. For the period 2000-2003, another 277 housing units were constructed, an annual average of 70 units or 5.8 percent. The average number of persons per housing unit was approximately 2.5.

Assuming a potential population of 8,000-10,000 by the year 2025, an estimated total of 3,200-4,000 housing units could be required. The total represents an increase of 2,014-2,537, an annual average of 80-115 housing units or 6.8-8.5 percent. The estimate assumes a continuation of the average of 2.5 persons per housing unit.

**Lindale ETJ Housing**

As of the year 2000, Lindale’s ETJ had an estimated total of 860 housing units, almost all single-family residential. The total represented an increase of 300 from the estimated 560 units in the year 1990, an annual increase of 30 units or 5.3 percent.

Assuming a potential population of 5,000-7,000 by the year 2025, an estimated total of 2,000-2,800 housing units could be required. The total represents an increase of 1,140-1,940, an annual average of 45-77 housing units or 5-9 percent. The estimate assumes an average of 2.5 persons per housing unit.

**City of Lindale Employment**

As of the year 2000, Lindale provided an estimated total employment of 2,200. Based on the U.S. Census, it had a labor force of 2,222, of which, 1,315 were employed in Lindale and elsewhere. It would appear that the city had at least 900 people commuting to Lindale for employment in 2000.

Current employment is estimated at 2,500. Of the total, approximately 1,900, or 76 percent, are employed in the private sector. The remaining 600, or 24 percent, are employed in the public sector. Target distribution center is the largest private sector employer at 1,150. The schools are the largest public sector employer at 551, followed by the City at 31.

Table 3-2 Total Housing Units

Lindale, ETJ, Smith County & ETCOG 1990 - 2025

Year	Lindale	Lindale ETJ	Smith County	ETCOG
1990	981	560	64,369	285,881
2000	1,186	860	71,701	318,156
2005	1,560 - 1,760	1,090 - 1,250	74,116	329,930
2010	1,920 - 2,320	1,320 - 1,650	76,924	342,764
2015	2,360 - 2,880	1,550 - 2,050	80,040	355,984
2020	2,800 - 3,440	1,800 - 2,430	83,155	369,204
2025	3,200 - 4,000	2,000 - 2,800	86,403	380,627

Source:

U.S. Census 1990 & 2000

Texas State Data Center for Smith Co. & ETCOG 2005, 2010, 2015, 2020 & 2025

RM Plan Group for Lindale 2005, 2010, 2015, 2020 & 2025

RM Plan Group for Lindale ETJ 1990, 2000, 2005, 2010, 2015, 2020 & 2025



Based on recent trends in Lindale and Smith County, the city's total employment could reach 5,500-6,200 by the year 2025. The estimate represents a 25-year increase by approximately 132-160 per year or 5-7 percent.

### Lindale ETJ Employment

As of the year 2000, the ETJ provided an estimated total employment of 200. The largest employers are landscape nurseries.

Assuming a similar trend as Lindale's, the ETJ's total employment could reach 1,100-1,300 by the year 2025. The estimate represents a 25-year increase by approximately 36-44 per year.

### City of Lindale Construction

Based on the number and value of building permits for the period 1997-2003, Lindale is experiencing an increase in residential and commercial construction.

Residential permits for the year 1997 totaled 32 and had an average value of \$83,699. Residential permits for the years 2002 and 2003 totaled 89 and 83 respectively and had an average value of \$101,464 and \$124,072 respectively.

Commercial permits for the year 1997 consisted of 1 valued at \$42,000,000 for the Target distribution center. The year 1998 consisted of 3 permits and had an average value of \$951,000. Commercial permits for the years 2002 and 2003 totaled 23 and 18 respectively and had an average value of \$66,226 and \$691,111 respectively.

### Lindale ETJ Construction

Due to there being no building permit approval agency, no documented information on construction in Lindale's ETJ is available. Based on a visual survey, there is indication of recent residential development in the area.

Table 3-3 Total Employment

Lindale, ETJ, Smith County & ETCOG 1995 - 2025

Year	Lindale	Lindale ETJ	Smith County	ETCOG
1995	*	*	63,437	196,750
2000	2,200	200	73,898	220,997
2005	2,700 - 2,900	300 - 400	84,000 - 90,000	248,900 - 254,100
2010	3,400 - 3,700	500 - 700	94,000 - 100,000	276,700 - 287,200
2015	4,100 - 4,500	700 - 900	104,000 - 110,000	304,500 - 320,300
2020	4,800 - 5,400	900 - 1,100	114,000 - 120,000	332,300 - 354,400
2025	5,500 - 6,200	1,100 - 1,300	124,000 - 130,000	360,000 - 386,700

Source: U.S. Census County Business Patterns for Smith Co. & ETCOG 1995 & 2000  
 RM Plan Group for Lindale & Lindale ETJ 2000, 2005, 2010, 2015, 2020 & 2025  
 RM Plan Group for Smith Co. & ETCOG 2005, 2010, 2015, 2020 & 2025  
 \*Information not available.

Table 3-4 Building Permits

City of Lindale 1997 - 2003

Year	Residential		Commercial	
	No.	Value	No.	Value
1997	32	\$2,678,370	1	\$42,000,000
1998	34	\$3,054,898	3	\$2,853,000
1999	44	\$3,900,750	7	\$2,991,000
2000	40	\$3,366,573	10	\$1,280,000
2001	65	\$5,510,601	9	\$3,000,000
2002	89	\$9,030,376	23	\$1,523,200
2003	83	\$10,297,986	18	\$12,440,000

Source: City of Lindale, 2004



# Chapter 4 - Community Form





## Chapter 4- Community Form

### Future Land Use Map.

The Future Land Use Map (*Figure 4-1*) delineates the intended type, location and extent of future land use. The uses and locations are generalized. The following should be considered in interpreting the map:

1. Depicting a future land use that is different from an existing use does not exclude or alter the continuation of that use.
2. The map does not constitute zoning or rezoning.
3. Some types of uses (e.g. agricultural, office, worship) are not specifically mapped even though they are intended for inclusion under the larger classification.

Twelve major classifications are included on the Future Land Use Map. As a measure of the ratio of building use to land area, each classification has one of the following assigned to it

- Residential density.** Residential density is assigned as the number of dwelling units per acre
- Commercial intensity.** Commercial intensity is assigned the maximum individual building size and maximum floor area ratio (far)
  - Convenience-Scale Commercial** = 10,000 square feet and .15 far
  - Neighborhood-Scale Commercial** = 50,000 square feet and .25 far
  - Community-Scale Commercial** = 100,000 square feet and .5 far
  - Regional-Scale Commercial** = over 100,000 square feet and 1.0 or over far

The characteristics and sub-category of uses are defined in the following.

**Farmstead and Agricultural.** Farmstead is defined as single-family residential on a minimum lot size of five acres. Crop production and animal pasturing may be included.

Agricultural is defined as crop product and animal pasturing. Forestry and nursery may be included.

The area designated for Farmstead and Agricultural is the northern-most portion of the planning area. Its location is generally below the elevation of the wastewater treatment plant. More intensive development would require sewerage lift stations. The area is also near two important

surface water features which should be protected as a natural resource.

**Low and Medium Density Residential.** Low and Medium Density Residential is defined as all single-family uses that involve a density of less than six units per acre. Two-family and multi-family uses that involve a density of less than six units per acre may be included as a conditional use where it is located on a collector or higher-level thoroughfare. Worship, crop production, animal pasturing, forestry and nursery may be included. Convenience-scale commercial use may be included as a conditional use where it is located on an arterial thoroughfare and where there is no existing commercial within a one-mile radius.

The areas designated for Low and Medium-Density Residential constitute the earlier development and emerging development portions of Lindale. In order to ensure the stability of the earlier development, use and design compatibility standards should be established for integrating existing and new development. Higher traffic generating uses should be located on the periphery of these residential areas.

**High-Density Residential.** High-Density Residential is defined as all single-family, two-family, multi-family and retirement uses that involve a density of six or more units per acre. Manufactured housing uses that involve a density of six or more units per acre may be included as a conditional use. Worship use may be included. Private recreational use may be included as a conditional use.

The areas designated as High-Density Residential are located in the central portion of the planning area. They are intended to provide transition between the less intensive residential uses to the north and the more intensive non-residential uses to the south. They are also intended to provide higher residential densities proportional to and that would permit financially the provision of private open space and recreational amenities. Childcare centers should also be included.

**Neighborhood Commercial.** Neighborhood Commercial is defined as limited retail and services commercial that



serve nearby residential neighborhoods primarily. The uses should be located on a collector or arterial classification street. Their design should be integrated with the residential neighborhood.

The areas designated as Neighborhood Commercial include the following:

- Loop Road 49 and Hwy. 16 interchange
- Hwy. 16 and Hwy. 498

In addition, neighborhood commercial may be located, as a conditional use, on collector and arterial classification roads in residential areas where there is no commercial within one-mile.

**Loop Road 49 Corridor.** Loop Road 49 Corridor is defined as all single-family uses that involve a density of at least six and no more than twelve units per acre. Mid-rise retirement group housing and interim care housing may be included. Retirement group and interim care housing may include convenience-scale commercial uses that are associated primarily with on-site tenants (e.g. personal care, food service, medical office, therapy, fitness). Private open space and recreational amenities should also be included. Convenience commercial use may be included adjacent to State Highway 16 interchange. Worship and associated camps may be included.

The area designated as Loop Road 49 Corridor is located along the western perimeter of the planning area. It is largely defined by the proposed Loop Road 49 and areas adjacent to its eastern edge. The Texas Department of Transportation has designated the thoroughfare as limited access. It is recommended that an interchange be included at State Highway 16 which provides access to Lindale's downtown.

The area is visually attractive due to its topography and forests. It is intended that the corridor maintain a natural appearance through uses that include large open spaces. There are two existing private camps in the area that include large open space. A golf course residential development is ideally suited to the area. Residential development should be clustered in order to provide private open space. It is

intended that this corridor would have an average density of about one unit per acre.

**Transportation and Distribution Center.** Transportation and Distribution Center is defined as warehousing/shipping, fuel/truck-stop and light to medium-impact industrial park uses. Limited food service and lodging use may be included. Office use associated with transportation and distribution may be included. Construction contractor and automotive repair uses may be included.

The area designated as Transportation and Distribution Center is located south of I-20 between Loop Road 49 and U.S. Highway 69. Primary access for the center is the I-20 and Harvey Road interchange. Additional access is provided by a new thoroughfare paralleling I-20 between U.S. Highway 69 and State Highway 849.

The Center is an alternative site for the potential relocation of the existing truck stop at the I-20 and U.S. Highway 69 interchange. Access to the alternative site should be from Harvey Road.

*Table 4-1. Land Use Plan Allocations*

Land Use Category	Acres Allocated by Plan	% of Plan Total
Downtown Mixed Use	307	1.74%
Waste Water Treatment	16	0.10%
Institutional / P.D.	349	1.97%
School	105	0.59%
I-20 / Hwy. 69 Gateway	241	1.36%
Hwy. 69 Corridor	356	2.01%
I-20 North Parallel Corridor	1,361	7.70%
Mixed Use Center	1,446	8.18%
Conservation Buffer	407	2.30%
Loop Hwy. 49 Corridor	1,648	9.32%
Farmstead & Agricultural	1,798	10.17%
Low / Medium Density Residential	6,700	37.89%
High Density Residential	1,403	7.93%
Transportation / Distribution Center	1,546	8.74%
TOTALS	17,684	100.00%



*Future Land Use Figure 4-1*





The Center is an ideal location for a proposed industrial park. The industrial park should be located near the I-20 and Harvey Road interchange.

**Mixed Use Center.** Mixed Use Center is defined as community-scale commercial use including retail, services, office and banking. Entertainment use may be included. Large-scale worship use may be included. Lodging use may be included. Multi-family residential use that involves a density of six or more units per acre may be included as a conditional use.

The areas designated as Mixed Use Center are located in conjunction with the I-20 interchanges at Jim Hogg Road, U.S. Highway 69 and State Highway 849. It is intended that individual developments within these centers would have their use and design integrated in creating a unified appearance. These areas serve as important entries to their respective communities and should provide an attractive appearance.

**Institutional and Planned Development.** Institutional and Planned Development is defined as regional-scale institutional use including medical center, college, college associated research park, and religious organization headquarters. Community-scale commercial use including office, medical office and services that are associated with and contained within the development may be included. In order to qualify as Planned Development, projects should have a 100-acre minimum, single ownership and adhere to a public approved master plan.

The area designated as Institutional and Planned Development is located north of I-20 between Harvey Road and the proposed Loop Road 49. It is intended that individual developments would be sited so that their primary building and campus face is oriented toward I-20 and Loop Road 49. It is also intended that individual developments would have their use and design integrated in creating a unified appearance. This area serves as an important entry to the community and should provide an attractive appearance.

**I-20 North Parallel Corridor.** I-20 North Parallel Corridor is defined as community-scale commercial use including retail, services, restaurant, medical clinic, medical office, office and banking.

The area designated as I-20 North Parallel Corridor is located north of I-20 between Jim Hogg Road and Harvey Road. Primary accesses to the corridor are the I-20 interchanges at Jim Hogg Road, U.S. Highway 69 and Harvey Road. Additional access is provided by a mostly new thoroughfare paralleling I-20 between Jim Hogg Road and State Highway 849.

**I-20 and Highway 69 Gateway.** I-20 and U.S. Highway 69 Gateway is defined as regional and community-scale commercial use including restaurant, lodging, exposition, tourism and information center and retail. Limited automotive service may be included.

The area designated as I-20 and Highway 69 Gateway is located along U.S. Highway 69 between the I-20 interchange and the proposed north parallel thoroughfare intersection. Due to access difficulties, it is recommended that the existing truck stop in the interchange be relocated. An alternative location would be in the Transportation and Distribution Center in conjunction with Harvey Road.

It is intended that this location serve as the primary gateway to Lindale. As the gateway, it is important that the area be visually attractive for business and visitor interests. Special signage, landscaping and lighting should denote the access. A landscaped median and decorative landscaping on each side of the thoroughfare is recommended. New buildings should be sited so that they create an architectural presence in framing the gateway.

**U.S. 69 Corridor.** U.S. Highway 69 Corridor is defined as neighborhood-scale mixed use including retail, services, food services, office, banking, entertainment and nursery. Single-family, two-family and multi-family residential uses that involve a density of six units or more per acre may be included as a conditional use.



The area designated as U.S. Highway 69 Corridor is located between the I-20 and Highway 69 Gateway and Lindale's downtown. It is intended that the corridor continue the visual elements of the gateway in creating a unified appearance. A landscaped median and decorative landscaping on each side of the thoroughfare is recommended. New buildings should be sited so that they continue the deeper setback that is associated with many of the existing buildings.

**Downtown Mixed Use.** Downtown Mixed Use is defined as mixed use including specialty retail, food services, personal services, office, banking, worship, school, governmental services, light industrial and single-family residential.

The area designated as Downtown Mixed Use comprises a 300-acre area at the intersection of U.S. Highway 69 and State Highway 16. The area is unique for its compact pedestrian scale and buildings with no setback and sharing common walls. It is important to maintain these features in enhancing the downtown.

The acquisition of the former cannery and its proposed reuse as a commercial mall creates an important opportunity to increase economic activity in the area. It will also increase pedestrian activity and the reuse plans should be integrated with the proposed community center and governmental center.

The mixed-use concept is intended to enhance downtown's role as the physical, political and psychological center of the community. Potential enhancements are the inclusion of a multi-purpose community center and a new city hall/government services center. These new buildings should be designed to reflect the historical character of the downtown area. There will also be an effort to conserve existing buildings downtown and protect their architectural and historical significance.

The downtown area will be more accessible and safer to pedestrians with the addition of central/shared parking, upgraded sidewalks, lighting, signage and landscaping. Outdoor recreation and celebration spaces will be added to increase the popularity of downtown as a social desti-

nation. This will in turn provide a more solid customer base for the small specialty commercial shops, banks and restaurants in the area. It will also make the downtown more attractive to the single family, multi-family and elderly housing residents in the mixed-use area.

### The Existing Transportation System

The basic structure of Lindale's existing roadway system is built around a network of state, farm to market and county roads that generally radiate out from the downtown area, as like spokes extending from the hub of a wheel. This traditional type of roadway pattern is found throughout the United States in communities that had agrarian based economies in their early years of development.

Lindale is strategically linked to more far reaching regional transportation systems via US 69, SR 16 and most notably Interstate 20. Both Dallas, Texas to the west and Shreveport, Louisiana to the east can be reached conveniently via I-20 in approximately 1.5 hours. This relative proximity to east Dallas has made Smith County attractive to potential home buyers who are willing to exchange lower housing costs and higher qualities of life for increased commuting times.

US 69 is a major regional highway facility that runs through the heart of the community north to south, passing directly through the downtown area. Named Main Street within the traditional downtown area, this roadway essentially functions as the transportation spine of the community. The current economic base of the community has gravitated to both sides this major four lane highway, and as a result, the existing character of US 69 today goes a long way in defining the perceived image of the community's both to its residents and to visitors.

In addition to forming the main street of Lindale today, US 69 also serves as the community's principle linkage to the City of Tyler approximately 12 miles to the south and to Mineola to the north. Tyler is the governmental seat of Smith County. Mineola is a community that attracts many annual visitors who currently pass through Lindale along US 69 on their way north. In addition to these tourist visitors, US 69 is also



part of the Texas Truck System linking Beaumont, Texas, with market destinations in Oklahoma. The existence of a major fueling station on US 69 just north of the I-20 interchange also makes this highway an attractive route for over-the-road haulers. This fueling station is a major contributor to traffic congestion and operational safety issues currently being studied by TxDOT. The volume and frequency of tractor trailers passing through the downtown area is also a matter of great concern to the community from the standpoint of noise, congestion, air quality and pedestrian safety.

In addition to the aforementioned US 69 interchange with I-20, the community benefits greatly by having three additional major interchanges along I-20 within the designated multi-jurisdictional study area. Those additional interchanges are: Jim Hogg Road at the eastern edge of the community; Harvey Road about mid-way along the southern boundary of the study area; and the FM 849 interchange that also serves as the gateway to the Hide-A-Way Lake community to the west.

State Route 16 bisects the community east to west, passing through the heart of the downtown area. Other notable components of the existing roadway network include a series of secondary rural and Farm to Market radial roads that bisect each respective quadrant of community, all terminating at or near the downtown area. Included among these secondary arterial roads are Jim Hogg Road to the southeast, FM 849 to the southwest, Old Mineola Highway to the northwest and FM 2710 to the northeast.

While the existing radial street network provides clearly defined circulation routes into and out of the city, the existing cross-community circulation patterns are less well defined. Relatively few true east/east connector routes exist within either the southern or northern halves of the community. Those roads and streets that do exist in the more active growth areas of the community appear to be somewhat random and disjointed when compared to a more well integrated and inter-connected street system.

As a general rule, the current residents of Lindale rely heavily on the major regional roadways to make local trips through-

out the community. This is especially true of US 69, where most local trips must intermingle with regional traffic with destinations farther to the north or south. The current local street network clearly functions better for trips utilizing the major radial roadway elements. Much needs to be done to improve opportunities for cross-community, or circumferential, traffic movements.

*Figure 4-2* illustrates the current transportation network serving the Lindale community. Identified are the major Federal, State, and County roadways. Also noted are areas generally recognized to be experiencing periods of operational congestion either during the AM or PM peak travel periods. Of particular note is the US 69 / I-20 interchange area. Congestion in this particular area can be attributed to a number of contributing factors, including high volumes of northbound US 69 traffic movements to west bound I-20 in the AM peak, heavy tractor trailer movements into and out of the aforementioned fueling facility in the northeast quadrant of the interchange, and relatively short and steep ramps to I-20. In response to ongoing operational issues at the US 69 / I-20 interchange, TxDOT is currently studying the feasibility of installing medians in US 69 for a distance of approximately 1000 feet north and south of the interchange. TxDOT also anticipates the eventual need to construct parallel frontage roads along the I-20 corridor between Jim Hogg Road and FM 849. *Table 4-2* identifies the existing Federal, State, and County roads in the comprehensive planning area.

### Transportation Planning Elements

The primary goal of the Transportation and Mobility Plan is to provide a long-range framework to guide the implementation of a safe and efficient system by which the citizens of Lindale can move about the community. Creating a safe, accessible, and efficient system for transporting people and goods contributes towards the companion goal of promoting a planned and orderly pattern of development within the community.

The Plan emphasizes the need to integrate land use and transportation planning. In the effort to keep the City from becoming increasingly auto-dependent, the Plan places em-



phasis on providing alternative forms of personal mobility.

**Goals and Objectives**

The following goals and objectives guide the formulations of the Transportation and Mobility Plan.

- 1. **Goal:** Link land use and transportation  
**Objective:** Coordinate land use and transportation planning to direct transportation improvements in a manner consistent with the community land use goals. Promote land use patterns that are less auto-dependent., such as afforded by mixed-use forms of development.
  
- 2. **Goal:** Maintain and enhance the existing transportation/ circulation network  
**Objective:** Provide for street connectivity between adjacent land uses and to each area of the City.  
**Objective:** Increase east/west vehicular movement opportunities in the both the southern and northern halves of the community
  
- 3. **Goal:** Improve access controls and minimize vehicular conflicts on the major street system  
**Objective:** Apply access management standards and guidelines
  
- 4. **Goal:** Provide a multi-modal system including walking, bicycling and mass transit  
**Objective:** Integrate sidewalks and bicycle lanes into the transportation system, and promote the development of greenways and multi-modal trails.
  
- 5. **Goal:** Reduce Congestion  
**Objective:** Increase street interconnectivity; develop and implement Traffic System Management systems
  
- 6. **Goal:** Finance needed improvements to maintain a balanced multi-modal transportation system  
**Objective:** Establish a balanced funding structure that would allow for short and long-range improvements and programs that will meet the needs for multi-modal system and will allocate costs fairly among users.

*Table 4-2. Existing Roadway System*

Name	Jurisdiction
County Rd. 432	County
County Rd. 434	County
County Rd. 435	County
County Rd. 465	County
County Rd. 472	County
County Rd. 473	County
County Rd. 474	County
County Rd. 475	County
County Rd. 487	County
County Rd. 499	County
County Rd. 4109	County
County Rd. 4112	County
County Rd. 4183	County
County Rd. 4185	County
County Rd. 4200	County
Bailey Rd. (County Rd. 4197)	County
Bennett Rd. (County Rd. 4140)	County
Boaz Lane (County Rd. 4221)	County
Cooper Rd.	City
Country Rd. (County Rd. 4137)	County
Countrywood Rd. (County Rd. 4188)	County
E. Hubbard St. / State Road 16	City
E. North St. (County Rd. 4111)	County
E. South St.	City
Experimental Station Rd. (County Rd. 461)	County
Farm to Market Rt. 1804	State
Farm to Market Rt. 2710	State
Farm to Market Rt. 2710	State
Farm to Market Rt. 849	State
Harvey Road (County Rd. 433)	County
I-20	State
Iron Mountain Rd (County Rd. 4108)	County
Jim Hogg Road (County Rd. 431)	County
Lake Lorraine Rd (County Rd. 4100)	County
Legion Hills Rd. (County Rd. 498)	County
Mack Thompson Rd (County Rd. 411)	County
Main Street (US 69)	State
Mallory St. (County Rd. 4207)	County
Mount Sylvan St.	City
N. College Street	City
Old Mineola Hwy (County Rd. 431)	County
Perryman Rd. (County Rd. 464)	County
Sand Flat Rd. (County Rd. 41)	County
TX 16	State
Wood Springs Rd. (County Rd. 463)	County



*Existing Transportation/Mobility System Figure 4-2*





7. **Goal:** Re-establish US 69 as Lindale’s “Main Street” and avoid the need to widen US 69 to six travel lanes in the future

**Objective:** Reduce local trip reliance on US 69 by increasing the number of east/west roadway connections to abutting residential neighborhoods and by creating secondary “service” streets parallel to US 69

**Objective:** Reduce use of US 69 as a regional truck route by encouraging and promoting the construction of Loop Road 49 along the western edge of the study area.

**Objective:** Develop and implement Transportation System Management (TSM) programs to maximize operational performance of a four lane US 69

**Objective:** Develop and implement an Access Management program for US 69 that encourages use of joint access driveways and intra-parcel connectivity

roadway improvements; and

- Serves as a guide and reference to design and operational decisions that may be made concerning the future improvement of any given street segment.

At its most fundamental level, the classification of a system of urban streets is based on the concept of the degree of mobility provided by a street as compared to the amount of access the street provides. For example, Interstate freeways and other state highways provide the highest level of inter-urban mobility, and extend into and through urban areas to provide the most important routes for urban travel, usually at the highest speed—providing the best “level of service” to vehicular traffic. Freeways provide the least direct access to adjacent land, since by definition all access is permitted only at interchanges.

### The Street Classification System

Street classification is an important and useful planning tool in efforts to create a comprehensive, understandable transportation system. The classification of streets serves several purposes.

- Allows city officials to clearly communicate the functional purpose of a street to the general public in the context of the overall transportation system;
- Facilitates understanding of the functional and operational differences between the different types of streets;
- Facilitates understanding of the jurisdictional responsibility for various streets and roads, and the methods of financing

At the other end of the spectrum, local streets are designed to provide nearly continuous land access, with driveways at every home. Local streets are meant to serve traffic that has its origin or destination on that particular street. They should be designed to discourage through (i.e. non-neighbor-hood) traffic whenever possible, to promote greater safety and livability in neighborhoods.

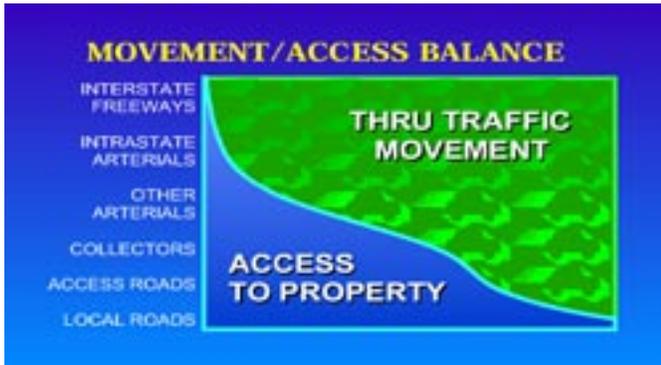
Between the extremes of freeways and local streets are urban majors and collectors, which provide a mixture of mobility and land access. *Figure 4-3* illustrates the relationship between mobility and access on the roadway system. *Table 4-3* lists the primary street design elements that are typically incorporated

Table 4-3. Primary Street Design Elements

Cross Section	Number of Through Lanes	Typical Right-of-Way Width	Median	Center Turn Lane	Planting Strip	Sidewalk	Curbside Parking	Access Control	Curb and Gutter
Arterial Street	4	100 ft	N	Y	Y	Y	N	HIGH	Y
Arterial Street	2	72 ft	N	Y	Y	Y	N	HIGH	Y
Arterial Boulevard	6	130 ft	Y	N	Y	Y	N	HIGH	Y
Arterial Boulevard	4	130 ft (1)	Y	N	Y	Y	N	HIGH	Y
Suburban/Rural Arterial	2	60 ft	N	N	N	N	N	LOW	N
Collector Street	4	72 ft	N	N	Y	Y	N	MODERATE	Y
Collector Street	2	60 ft	N	N	Y	Y	N	MODERATE	Y

(1) Expandable to 6 lanes in future if necessary

within an arterial or collector street right-of-way.



Relationship between Mobility and Access Figure 4-3.

The determination of the appropriate classification for each street in a city requires a process that examines the relative role each street plays as part of the entire system. Because it is not possible to measure directly the proportion of “mobility” and “access” that each street segment provides, the process involves an evaluation of several important criteria that correlate strongly with those primary attributes of mobility and access. The five most important criteria used for determining street classification are Average Daily Traffic counts, use by non-auto modes of travel, length of street, spacing of streets, and street connectivity.

Classification does not, by itself, determine the design of new streets or improvements to existing streets. The classification of a street provides a basic indication of how that street functions as part of the overall street network. Since streets of like classification may often have very different characteristics in terms of overall width, number of lanes, adjacent land use, and other key features, the classification itself only provides a starting point for the design of a new street, or improvements to an existing street.

### Arterials

Arterials primarily function to serve a high degree of vehicular mobility. They may also provide land access, although that level of access depends heavily upon the specific use and classification of arterials. The functional nature of arterials dictates that typical design standards limit parking and property access in most locations to improve the traffic mobility and safety of through vehicles.

Arterials continue through cities and towns, and become the primary “arteries” for intra-urban movement within the larger cities, as well as providing for through traffic and for travel from the city to outside destinations. One of the key characteristics of arterials is therefore the high degree of connectivity they provide within the urban area. These streets and highways typically connect various parts of the region with one another and with the “outside world,” and serve as major access routes to regional destinations.

There are several classifications of arterials. They include:

- Freeways, (e.g. I-20) with 4 to 10 travel lanes with full control of access. Freeways are almost always under exclusive State and Federal-aid jurisdiction.
- Expressways, (e.g. proposed Loop Road 49) with 4 to 8 travel lanes with full control of access. Expressways are typically under exclusive State and Federal-aid jurisdiction.
- Urban arterials, (e.g. US 69) with 4 to 6 travel lanes with limited private access. While most urban arterials are State roadways, the City coordinates closely with the State in the planning and design of these roadways and typically is responsible for their operation.
- Rural arterials, with 2 to 4 travel lanes. Many existing rural arterials in Lindale are old “Farm to Market” State highways on the outer edges of the county.

### Collector Streets

Collector streets primarily function to serve a mix of vehicular mobility and property access, and are designed to fulfill both functions. The primary function of collector (sometimes referred to as connector) streets is to provide an efficient and safe connection between major streets or other collectors. They usually serve shorter trip lengths and have lower traffic volumes than major streets. Collector streets are also often used as important emergency response routes and are sometimes used as transit routes.

There are two basic functions of collector streets: to serve residential areas, or serve non-residential areas. While the function of both types is essentially the same, residential collector classifications are applied only in residential neighborhoods. Standards for residential collectors provide for design flexibility to preserve the livability and character of residential areas, while design criteria for non-residential



collectors are intended to maintain the character of adjacent property while providing safe and efficient traffic flow with reasonable convenient property access.

While not specifically designated as such on the Proposed Transportation Plan, collector streets can also be generally grouped into “major” and “minor” categories. Major collectors typically carry daily traffic volumes in the range of 2,500 vehicles. Major collector streets can be found in residential, commercial and industrial areas. Minor collector streets are typically found only in residential neighborhoods or rural areas and provide a high degree of access to individual properties. The proposed Transportation Plan for Lindale designates major collectors as 4 lane streets, and minor collectors as 2 lane facilities.

The illustrations in *Appendix 4* identify typical cross sections for each of the arterial and collector street classifications for the City of Lindale. These cross sections indicate minimum typical rights-of-way, number of lanes, pavement widths, medians, application of curb and gutter, sidewalks and bikeways, utilities, landscaping, and buffering.

### Street Connectivity

Street “connectivity” refers to the frequency at which a community’s roadway network provides linkages between its individual components. Connectivity contributes to the overall efficiency of the transportation system by reducing travel times and increasing the number of “choices” that a traveler may make in going from point A to B. Street connectivity has a direct bearing on traffic congestion. The greater the level of street connectivity, the lower the incidence of congestion choke points in the roadway network.

State highways are generally interconnected with one another to provide a continuous network of high-order roadways that can be used to travel into and through urban areas. Urban arterials provide a similar interconnected network at the city-wide level. By contrast, collector streets often connect local neighborhood streets with one or two major streets, thus helping provide connectivity at the neighborhood scale rather than a city-wide level. Local streets also provide a degree of connectivity as a necessary component of property

access. However, the street lengths, traffic control, and/ or street geometry are usually composed so that anyone but local travelers would consider the route inconvenient, except for access to the immediate neighborhood.

The existing street network in Lindale has very limited street connectivity, especially in the newly developed residential areas. A major goal of the Plan is to develop a fully integrated network of interconnected streets.

### The Transportation and Mobility Plan

As the community of Lindale continues to grow and evolve in the years ahead, it will be necessary to expand and improve upon the existing roadway system to ensure that future residents are provided a safe and efficient network of streets for by means of moving throughout the City. In addition to street improvements, however, a primary goal of the City’s long range transportation plan is to development a more diversified, multi-modal approach to overall mobility. As the community continues to grow and evolve, it will become increasingly necessary to supplement traditional vehicular travel with alternative options for moving in and about the community for all segments of the population. To that end, this long range Transportation / Mobility Plan places significant emphasis on the establishment of a comprehensive and cohesive system of interconnected roadways, bikeways, sidewalks and greenways to link the community together.

In the foreseeable future the principle form of mobility within the community will continue to be the automobile. Therefore, the basic platform of the City’s transportation plan will continue to be its roadway and street network. *Figure 4-4* illustrates the major roadway components of the long range plan. Major transportation elements worthy of special mention include:

### Roadway Classification System

Recommend by this Transportation / Mobility Plan is the establishment of a clearly defined hierarchy of street types designed and sized to accommodate continued growth and development within the community. A roadway hierarchy establishes clear purpose and definition of a system of roads designed to work together to serve both the local



and regional travel needs of the community. The hierarchy of streets established by this Plan includes interstates (i.e. I-20), controlled access freeways (i.e. Loop Road 49), arterial streets, boulevard facilities and collector streets. Each type of roadway serves a different purpose and provides an appropriate level of property access and through travel capacity. Figure 4-4 identifies recommended roadway lanes associated with both the existing and proposed arterial and collector streets.

### Street Inter-Connectivity

It has already been noted that the community's existing roadway system functions well as a network of radial oriented roads and highways, particularly in their ability to direct traffic movements from the multiple I-20 interchanges toward the centralized downtown area. The ability to move traffic laterally across the community, however, is currently hampered by the lack of clearly defined east-west connector roads. A major element of this Transportation / Mobility Plan, therefore, is to systematically develop a full network of inter-connected collector streets that place particular emphasis on enhancing opportunities to travel east and west across the community, particularly within the southern sector of the City where the highest rates of growth are anticipated. One effective method of accommodating higher volumes of traffic resulting from growth and development is to implement a network of highly inter-connected streets that provide multiple options for movements throughout the community. Dispersal of traffic helps to reduce congestion that otherwise results from high travel demands along a roadway corridor.

### US 69 Gateway Corridor

Due to its strategic orientation within the community, US 69 will continue to be acknowledged by local residents as the principle roadway corridor with the City. A major goal of this Plan, therefore, is to reclaim US 69 as Lindale's "Main Street" and its principle gateway corridor into the community. Redefining US 69 from its current role as a major regional pass-through highway into Lindale's Main Street will require extensive coordination and cooperation with TxDOT. Construction of a Loop Road 49 reliever route as currently proposed by TxDOT will play a major

role in the City's ability to redefine the US 69 / Main Street gateway corridor.

Existing average daily traffic counts along US 69 in the general vicinity of the I-20 interchange indicate that the highway currently operates at a Level of Service (LOS) D, with a daily peak volume of approximately 20,000 vehicles. Future projections provided by TxDOT indicate that daily peak volumes along US 69 will rise to approximately 35,000 vehicles by the year 2027 if Loop Road 49 is not constructed. With construction of Loop Road 49, the future daily peak volumes for US 69 drops to approximately 28,400 vehicles by the year 2027. These volume forecasts equate to an unacceptable LOS F in 2027 if the Loop Road 49 reliever route is not constructed and the highway remains in its current four lane cross-section. With construction of the Loop Road 49 reliever route, US 69 would function at a marginal LOS D in its current four lane status. With the further introduction of Transportation System Management (TSM) measures, including access management requirements and the construction of parallel service roads, this Plan anticipates that an acceptable LOS C can be maintained in the future on US 69.

To achieve more acceptable levels of service along the US 69 corridor, the Plan recommends a multi-faceted approach to increasing operational efficiencies. This would include formulation and implementation of a comprehensive Traffic Management System that would include an effective access management program, requiring increased use of joint access driveways and more intra-parcel connectivity along the corridor. Also strongly recommended is the introduction of parallel service roads to the easterly and westerly sides of the US 69 corridor that can provide additional access opportunities to abutting businesses, the intent being to reduce the need for local shopping trips to enter the highway itself and thus reduce traffic volumes on the highway. Local shoppers will know of these alternate routes to their primary shopping destinations and can use these parallel service roads rather than clog the main route on US 69.

*Transportation/Mobility Plan System Figure 4-4*





### US 69 Intersection Spacing

The Plan recommends that major signalized intersections along US 69 be spaced at approximately one-half mile intervals along the corridor. This general spacing interval allows for optimized coordination of signal timings, matches well with the preferred one-half mile spacing of collector roads along with the recommended one-quarter mile radius of traditional neighborhood development patterns.

### Loop Road 49

TxDOT is currently studying that potential construction of a US 69 reliever route within the western reaches of this Plan's multi-jurisdictional planning area. Known as Loop Road 49, this facility would originate to the south in Tyler and would serve to re-direct through regional traffic off of the US 69 corridor that currently passes through the heart of downtown Lindale. The current preferred alignment for Loop Road 49 would run south to north just east of the Hide-A-Way Lake community. TxDOT currently proposes to provide an interchange at the intersection of Loop Road 49 with I-20. The preliminary design and configuration of that interchange with its attendant frontage road system is included in *Appendix 5* as a reference source. This Plan strongly recommends the installation of an additional interchange at SR 16 in anticipation of continued growth and development pressures within the southern sectors of the Lindale community. This interchange would serve to relieve future volumes at the FM 849 and Harvey Road interchanges along I-20, thus reducing travel times for those long-range commuters traveling to and from major employment centers in Dallas from northern and eastern Lindale.

### US 69 / I-20 Gateway Interchange

Lindale's current "front door" is defined by the US 69 / I-20 interchange. It is anticipated that this area will continue to function as most visitor's first exposure to the community, and it is for that reason that US 69 needs to be reclaimed as Lindale's Main Street. Given the significant importance of this gateway entrance to the community, this Plan recommends that measures be undertaken by local and State officials respectively to improve the operational and safety characteristics of the roadway system and enhance the visual character of the approaches.

As noted previously, TxDOT officials have identified that existing operational problems associated with the interchange can be attributable to multiple factors, including excessively steep I-20 entrance and exit ramps, the need for an additional north bound left turn storage lane in US 69, the number of driveway ramp cuts directly to US 69 in close proximity to the I-20 exit and entrance ramps, and the sheer volume of truck traffic patronizing the fueling station located in the northeast quadrant of the interchange. TxDOT has studied remedial plans that would address these operational issues by the installation of medians within US 69 both north and south of the I-20 interchange, and by the introduction of a grade-separated US 69 / East - West Connector Boulevard intersection approximately one-half mile north of the I-20 interchange.

Corrective actions recommended by this Plan include encouraging the relocation of the truck fueling station to either the Harvey Road or the new Loop Road 49 interchange areas. Any redesign of the I-20 interchange entrance and exit ramps by TxDOT should take into careful consideration the need for maintaining sufficient clearance to allow a future bikeway facility to pass under the interstate along the former Missouri-Pacific railroad bed. A concerted effort should also be made to introduce a joint access system for those commercial establishments located in close proximity to the interchange ramps upon introduction of landscaped medians within the highway. The overriding goal in these efforts should be to arrive an acceptable operational condition along the roadway that eliminates the need to transform US 69 into a high volume controlled access highway, and allow it to serve as an attractive gateway corridor into the City.

### East / West Connector Boulevard

The southern sector of Lindale is well positioned to experience tremendous growth and development opportunities over the next twenty year planning period due to its proximity to the I-20 corridor and its associated interchanges. In response to that growth, a major roadway component of the Transportation / Mobility Plan is a new East / West connector boulevard aligned north of and parallel to I-20 that would connect Jim Hogg Road to the east with FM 849 to the west, passing under or over Loop Road 49. It



is recommended that this important roadway facility be designed as a high quality, aesthetically attractive corridor. *Figure 4-10* in the Parks, Recreation and Open Space Plan identifies the key design elements recommended for this boulevard street, including under ground utilities, curb and gutter, raised planted medians, attractive street lights, sidewalks and a combination bikeway/pedestrian way path along one side that is a component of the community's comprehensive greenway / bikeway network. A minimum right-of-way width of 130 feet is recommended for this 4-lane boulevard corridor to provide adequate room for effective landscaping treatments and to preserve the opportunity to add additional travel lanes should the need arise at some time in the future. Amenity features such as decorative walls or fences with impressive planting areas are recommended at the major gateway intersections, particularly at the US 69 and Harvey Road intersections.

#### **Former Missouri – Pacific RR (noted as “Rails to Trails” in this Plan)**

Prior abandonment of the former Missouri-Pacific Railroad line has provided the City with a unique opportunity to work with affected property owners to develop a key multi-modal transportation corridor. The alignment of this former rail line is opportune in that it allows the strategic inter-linkage of downtown Lindale both with the I-20 interchange and to the greater Tyler region to the south, together with the added advantage of allowing inter-connection with all forms of development occurring along the eastern margin of the US 69 gateway corridor. Strongly recommended by this Plan is the construction of a dedicated bikeway / pedestrianway along the entire length of this former rail bed. A companion collector street is recommended in the segment between 472 and 474. This facility could function as the community's open space artery on the eastern side of the US 69 corridor. A proposed cross section of this recommended facility is provided in the Parks, Recreation and Open Space Plan as *Figure 4-9*.

#### **Transportation Management Systems**

In order to maximize the efficiency of the transportation system, the Plan recommends that the City development and implement a Transportation System Management (TSM) program. TSM techniques may include traffic signal modifica-

tions, timing adjustments, phasing adjustments, in addition intersection improvements such as additional turn lanes or lane utilization adjustments. Also recommended is an access management program for the major arterial streets, especially US 69. The City may opt to use the state-wide Access Control Manual prepared by TxDOT, or develop a more restrictive program specifically tailored for this community. Among the key elements of an effective access management program is the requirement for intra-parcel connectivity and the designation of joint access drives. This is highly recommended for the US 69 corridor.

#### **Bikeways/ Pedestrianways**

The ultimate long-range transportation system for the City at “build out” should include the integrated provision of alternative transportation modes other than streets. Walking and bicycling can play a major role in a community's transportation system, especially within residential and school areas, and between residential areas and activity or job centers.

Significant numbers of traditionally short vehicular trips can be diverted to bicycling if adequate, safe and convenient facilities are provided by the City. Bicycle transportation generally takes the form of mixed on-street flow, separate marked on-street lanes, separate off-street (but within street right-of-way) bike lanes, and separate bicycle trails not affiliated with streets. Pedestrian transportation generally takes the form of separate off-street (but within street right-of-way) sidewalks and sidewalks or trails not affiliated with streets. The Parks, Recreation and Open Space Plan identifies a comprehensive network of greenway/ bikeway/ pedestrianway connectors designed to interconnect the community's major parks and civic facilities via those non-automotive modes of mobility.

#### **Traffic Calming**

Traffic calming techniques may be appropriate for carefully selected neighborhood streets within the city as a means of:

- a) Reducing traffic speeds;
- b) Reducing traffic-related noise levels;
- c) Reducing traffic volumes in selected areas;
- d) Ensuring fair and appropriate distribution of traffic throughout a neighborhood;
- e) Improving safety and travel conditions for motorists,



- pedestrians and bicyclists;
- f)** Improving traffic circulation;
- g)** Reducing the need for traffic regulation and heightened law enforcement in problem area;
- h)** Reducing air pollution levels; and
- i)** Providing increased opportunities for neighborhood revitalization.

Traffic calming techniques should not be applied in isolation. All traffic calming devices should be planned and designed with significant input by residents and businesses in the affected areas. Care should be taken in the location and design of traffic calming devices to avoid significantly reducing emergency response times. All traffic calming devices should be planned and designed in keeping with sound engineering and planning practices, and with careful consideration of long-term, cost-effective maintenance. Listed below are different traffic calming techniques that may be employed. Illustrations of those techniques are provided in *Appendix 6*.

- Roundabouts
- Speed humps
- Traffic Circles
- Chicanes
- Lane narrowing
- Neck-down(s)
- Intersection Humps
- Raised crosswalks

*Table 4-4* should be used as a guideline for initial evaluation of appropriate traffic calming strategies for various types of streets.

### Access Management

An Access Control Plan can help reduce congestion and traffic conflicts associated with new development along a major public roadway. TxDOT has adopted an Access Management Guidelines manual for use along state regulated highways. Local communities like Lindale may use the TxDOT access management standards for new developments within the City’s jurisdiction. Alternately, the City may elect to develop and apply its own standards to both state and local streets.

Where necessary for the safe and efficient movement of traffic, the City may limit or restrict turning movements at

driveways. The City may also require the dedication and use of joint and ingress/egress easements where in the opinion of the City Engineer the public health, safety or welfare would be significantly impacted by the use of separate access points for adjacent parcels.

The City should have established policies as to the appropriate location and conditions appropriate for any of the following conditions:

- Median opening warrants and control
- Guidance of two-way left-turn lane
- Raised median requirements

Developments should be required to control any traffic operation within the site and not allow storage or stacking of vehicles into drive aisles or onto the public street system. An example of this would be a bank, fast-food restaurant or a school. Operational and safety efficiencies may also be enhanced by the use of dedicated left turn storage lanes at street intersections and major driveway entrances.

Intersecting streets and private driveways should intersect a public street at 90° or as close to 90° as topography permits (no less than 80°). Appropriate sight distance must be maintained by all newly proposed access points. In addition, access control design elements should be developed for the spacing of interchanges, intersection and traffic signals.

*Table 4-4. Traffic Calming on Major Streets*

Traffic Calming Device	4-Lane Arterial	2-Lane Arterial	4-Lane Connector	2-Lane Connector
Roundabouts	Yes	Yes	Yes	Yes
Traffic Circles	No	No	No	Yes
Speed Humps	No	No	No	No
Chicanes	No	Yes	Yes	Yes
Lane Narrowing	No	No	Yes	Yes
Neckdown(s)	No	Yes	Yes	Yes
Intersection Hump	Yes	Yes	Yes	Yes
Raised Crosswalks	No	No	Yes	Yes



### Parks, Recreation and Open Space

It is important to have active participation by the city, county, state and non-governmental, civic organizations to provide a comprehensive system of active and passive recreational opportunities throughout the community. This Comprehensive Plan for Lindale shall continue to encourage and promote this well-balanced approach.

The objective is to identify those additional neighborhood and community park facility needs that will be required to satisfactorily accommodate the projected population growth within the City's established ETJ over the twenty year comprehensive planning period. The goal is to have an integrated network of parks and open spaces linked by greenways and bikeways that will provide equal opportunity for safe recreational and cultural activities and that will preserve and protect the natural resources in the City.

#### Existing Parks and Recreation System

The Parks and Recreation system in the City of Lindale is currently composed of one neighborhood park, Pool Park, and one community park, Faulkner Park. The Lindale Independent School District (ISD) also provides some recreational opportunities to the citizens of Lindale at its main administrative campus off of Eagle Spirit Drive. The community's existing park and recreational facilities are identified in *Figure 4-5*. *Table 4-5* further identifies the two existing City parks and their respective amenity features.

*Table 4-5. Park and Recreational Facility Inventory*

NRPA Classification	Faulkner Park Community	Pool Park Neighborhood
Size (acres)	175	
Baseball fields		5
Basketball court	1	
Concession stand	1	1
Pavilion (covered)	1	1
Playground area	2	1
Soccer fields	5	
Tennis courts	4	
Trail, Nature	1	
Volleyball court	1	

### NRPA Standards and Concepts

As the community continues to grow and evolve in the future, the challenges to be addressed will be to effectively plan for and implement those improvements to the parks and recreation program that will be necessary to insure that all future residents of the community have an opportunity to enjoy and benefit from a parks program second to none.

To project future park and open space needs, population and location should be taken into consideration. The National Recreation and Park Association (NRPA) establishes standardized guidelines based on population levels that can be used to determine the appropriate number and size of parks, as well as the location of future park facilities.

The NRPA sets standards for park space per 1,000 people. It is a means of measuring the availability of park land for the population. NRPA recommends a ratio of 6.25 to 10.5 acres per 1,000 people. Based on Census 2000 data, the City of Lindale and the City's ETJ has a population of 5,104. This would translate into a current need for 31.90 to 53.59 acres of park land. At approximately 175 acres, Faulkner Park alone far exceeds the City's current park land needs based on population.

Parks are classified based on size, service area, and facilities provided. The standard classification categories for level of service that are applicable to the study area are neighborhood parks, community parks, and special use facilities. *Table 4-6* identifies a set of standards recommended by the National Recreation and Park Association for sizing neighborhood and community scale park facilities. In addition, *Table 4-7* lists NRPA recreational facility standards by type.

### Neighborhood Parks

Neighborhood parks are defined by the NRPA to have a service area radius of one-fourth to one-half mile, and are intended to serve a population that is within walking distance. Since neighborhood parks are designed for families and children, they should be located where users within the service area are not required to cross streets or thoroughfares with more than two lanes. The ideal location of a neighborhood park is at the center of the



*Existing Parks/Recreation/Community Facilities Figure 4-5*





Table 4-6. NRPA Park Land Standards

Recreational Area Type	NRPA Service Radius	Park User Focus	Acreage per 1,000 Residents	Size (Acres)
Neighborhood Parks	1/4 to 1/2 mile	Families	2.0	5 to 10
Playground only	1/4 mile	Children		up to 1
Parks with School	Varies/ Variable	Children		3 to 5
Community Parks	1/2 to 3 miles	Youth/ Adults	5.0 to 8.0	20 to 50
Parks with School	N/A	Youth		10 to 20

James D. Mertes, Ph. D., et al., Park, Recreation, Open Space and Greenway Standards, 1996, National Recreation and Park Association.

Table 4-7. Recreational Facility Standards  
(Standards are based on units per population)

Type	Service radius and location notes	NRPA	
		Units per population	Area Needed
Baseball diamond	1/4 - 1/2 mile. Part of neighborhood complex. Lighted fields part of community complex.	1 per 5,000	1.2 acres min. for Little League; 3.0 - 3.85 acre min. for official
Basketball court (outdoor)	1/4 - 1/2 mile. Outdoor courts in neighborhood/ community parks, plus active recreation areas in other park settings.	1 per 5,000	7,280 sq. ft.
Football	15-20 minutes drive time	1 per 20,000	1.5 acres min.
Multi-use court	1 - 2 miles.	1 per 10,000	9,840 sq. ft.
Soccer field	1 - 2 miles. Number of units depends on popularity. Youth popularity. Youth soccer on smaller fields adjacent to fields or neighborhood parks.	1 per 10,000	1.7 - 2.1 acres
Softball diamond	1/4 - 1/2 mile. May also be used for youth baseball.	1 per 5,000	1.5 - 2.0 acres
Swimming pool	15-30 minutes travel time	1 per 20,000	2 acres min.
Tennis court	1/4 - 1/2 mile. Best in batteries of 2-4.	1 per 2,000	7,200 sq. ft. (1crt)
Trails	1 trail system per region		
Volleyball court	1/4 - 1/2 mile.	1 per 5,000	4,000 sq. ft.

James D. Mertes, et al., Park, Recreation, Open Space and Greenway Guidelines, 1996, National Recreation and Park Association.  
 Roger A. Lancaster, Ed., Recreation, Park and Open Space Standards and Guidelines, 1990, National Recreation and Park Association.



neighborhood, either adjacent to a multi-family dwelling or an elementary school. If the park is located next to an elementary school, then the park should be at least three acres. If the park is located independently of a school, then ten acres is recommended.

Typical facilities in neighborhood parks include: play equipment for preschool and school age children, multi-use paved surfaces, areas for field games, small picnic areas with shelters, walkways, tennis courts, restrooms and off-street parking. Primarily the facilities provide for passive recreational needs, but some areas are designated active as well. Average neighborhood park size should range between 5 to 10 acres and have a ratio of 2 acres per 1,000 persons served.

### Community Parks

Community parks are defined by the NRPA to have a service area radius of approximately a half mile to three miles, and are designed to serve multiple neighborhoods. The park primarily serves as an athletic complex for the community to utilize. These parks should be located on arterial streets or thoroughfares to allow easy accessibility for pedestrians and bicyclists, and to prevent automobile traffic from intruding upon the surrounding neighborhood areas. Wherever possible, community parks should be located adjacent to schools or churches so as to take advantage of the existing parking areas of these facilities. Any future school sites should ideally include supplemental acreage for a park and the opportunity to share facilities.

Typical facilities in community parks include: lighted athletic fields (football, baseball, softball, soccer and volleyball) and tennis courts, swimming pool, paved or unpaved multipurpose trails, sand volleyball courts, a multipurpose court, large picnic areas, natural areas, adequate parking, and restrooms. Average community park size should range from 20 to 50 acres and have a ratio of 5 to 8 acres per 1,000 persons served (minimum one acre per 1,000 persons).

### Special Purpose Facilities

Special purpose facilities usually provide for either a single specific or a set of several specific uses. Community parks

are targeted as prime development sites for special purpose facilities that will serve the needs of the entire community. Examples of special purpose facilities include a cultural arts center, multipurpose athletic complex, tennis center, aquatic center, historical site, golf course, and nature preserve.

Equally important as identifying future needs of the City based on population is properly locating those facilities throughout the community in response to user needs. It is important to provide a comprehensive array of recreational opportunities throughout *all* areas of the City, with a particular emphasis on neighborhood-based facilities. In addition to the NRPA standards, it is recommended that the following principles also be applied to the process of locating future park facilities in the City of Lindale:

- To the greatest extent possible, locate neighborhood and community parks adjacent to the major open space corridors within the community, especially those associated with the natural drainage networks and their corresponding floodplains. Linear parks, multipurpose trails, nature study areas, and dedicated open space for passive use are suitable developments for land within a floodplain.
- Attempt to link all park facilities to the community-wide bikeway and pedestrianway network;
- Locate neighborhood parks to be safely and conveniently close to the residential areas being served; minimize at grade-crossings of major streets and highways to the greatest extent possible.
- Capitalize on opportunities to locate mini-parks uniformly throughout the community's neighborhoods by encouraging their establishment in association with new residential and mixed-use development initiatives.
- Whenever practical, locate mini-parks and neighborhood parks in conjunction with other complementary community facilities such as schools, libraries, fire halls and places of worship.
- Locate parks for active recreation in areas located substantially outside of the 100-year floodplain, where grades range from one to five percent.
- Design parks to allow for maximum visibility into the site from surrounding streets.
- Acquire future parkland as early as possible, preferably before the subject service area begins to experience a rapid rate of growth and development.



- Acquire as much land area in any given service area as budgeting allows to provide long-term opportunities for expansion and adaptability to changing service needs; later expansion opportunities are often prohibitively expensive due to surrounding land development and higher land costs.
- Park sizing and spacing standards should be used as general guidelines; it is always preferable to establish a park at standards less than ideal if the alternative is to provide no park at all.
- All existing and future park facilities should be interconnected by “dark fiber” communication networks.

The above location principles have been employed in the preparation of this Comprehensive Plan to help identify those additional neighborhood and community parks facilities that will be required to effectively service the future population growth of the City through the twenty-year planning period.

### Park Need Assessments and Recommendations

The parks and recreation needs for Lindale are assessed according to the NRPA standards defined above. The establishment of these guidelines based on population has helped to quantify

Table 4-8. NRPA Standards for the Comprehensive Planning Area

POPULATION	NRPA STANDARD (6.25 - 10.50 ACRES PER 1,000 PEOPLE)
5,104 (current population)	31.90 - 53.59 ACRES
10,000	62.50 - 105 ACRES
15,000	93.75 - 157.50 ACRES
20,000	125.00 - 210.00 ACRES
25,000	156.25 - 262.50 ACRES

in general terms the needs of the City as a whole and the areas of the City that are underserved by parks facilities. Park and recreational facilities planning typically utilizes community population as the standard for identifying program needs. The projection for the comprehensive planning area needs based on the NRPA population standards is shown in Table 4-8.

Table 4-9, Parks and Recreation Facility Demands by Population, is a valuable resource to utilize in identifying and monitoring future program “needs” as the City grows in population. This table identifies future recreational needs based on the type of facility required (e.g. soccer fields) and projected “need”

Table 4-9. Parks and Recreation Facility Demands by Population

Activity	Population		Current		10,000		15,000		20,000		25,000	
	Lindale Standard	Existing Facilities	Existing Need	Existing Surplus/Deficit	Demand	Surplus/Deficit	Demand	Surplus/Deficit	Demand	Surplus/Deficit	Demand	Surplus/Deficit
Basketball	1/5000	1	1	0	2	-1	3	-2	4	-3	5	-4
Tennis	1/2000	4	2.5	1.5	5	-1	7.5	-3.5	10	-6	12.5	-8.5
Baseball	1/4000	5	1.25	3.75	2.5	2.5	3.75	1.25	5	0	6.25	-1.25
Baseball Practice	3/Field	0	3.75	-3.75	7.5	-7.5	11.25	-11.25	15	-15	18.75	-18.75
Softball	1/4000	0	1.25	-1.25	2.5	-2.5	3.75	-3.75	5	-5	6.25	-6.25
Softball (Practice)	3/Field	0	3.75	-3.75	7.5	-7.5	11.25	-11.25	15	-15	18.75	-18.75
Football	1/15000	0	0	0	0	0	1	-1	1.34	-1.34	1.67	-1.67
Football Practice	6/Field	0	0	0	0	0	6	-6	7.98	-7.98	10	-10
Soccer (Full-Site)	1/5000	5	1	4	2	3	3	2	4	1	5	0
Soccer Practice	4/Field	0	4	-4	8	-8	12	-12	16	-16	20	-20
Playgrounds	1/3000	3	1.67	1.33	3.34	0.34	5	-2	6.67	-3.67	8.34	5.34
Swimming Pool (Outdoor)	1/15000	0	0	0	0	0	1	-1	1.34	-1.34	1.67	-1.67
Swimming Pool (Indoor)	1/20000	0	0	0	0	0	0	0	1	-1	1.25	-1.25
Shelters	1/3000	2	1.67	0.33	3.34	1.34	5	-3	6.67	-4.67	8.34	-6.34
Volleyball	1/5000	1	1	0	2	-1	3	-2	4	-3	5	-4



based on service population levels. The table identifies existing and future facility demands according to population growth categories, commencing with the current City population of 5,100 persons (based on year 2000 Census data of 5,104 residents) and ending with a projected population of 25,000 residents. This type of information provides a valuable planning tool to assist the City in programming and budgeting for the construction of new facilities in order to keep pace with continuing population growth and the associated demands for new recreational facilities.

*Figure 4-6, Lindale Parks, Recreation, and Open Space Plan, identifies the additional neighborhood and community scale parks that will be required to supplement existing City facilities. This map also shows the approximate service areas for each existing and proposed park. It is important to note that the exact location of the proposed community park is flexible, and does not have to be in the precise location of where it is depicted on the map.*

### Greenways and Bikeways

As already identified in the Transportation and Mobility Plan, it is also important in a multi-modal system to provide opportunities to link parks, open spaces, and public facilities through a comprehensive network of bikeways and greenways. To date the City has not developed a greenway or bikeway facility, nor does the City have a program designed to implement such a system. If developed, such a system could provide both recreational and alternative mobility opportunities for present and future residents of the community.

### Development Standards

The following development standards are recommended for the location and design of greenway systems throughout the community:

- Separate greenways from vehicular traffic
- Develop a greenway within two miles of all neighborhoods and core areas of the City
- Provide open space and passive recreational opportunities within greenway corridors
- Design multi-use paths for two-way flows.
- When available, locate trailheads adjacent to major community facilities such as schools, churches, or parks

It is recommended that the City implement a City-wide network of sidewalks and bikeways to interconnect community activity generators such as schools, parks, the library, community recreation centers, major shopping areas and the general downtown district. The network would be further enhanced with linkages from individual neighborhoods to the city-wide system. Benefits of such a network would include:

1. Reduction of vehicular trips, thus reducing traffic congestion;
2. Improved bicycle and pedestrian safety;
3. Greater accessibility and utilization of community facilities;
4. Enhanced social interaction, general quality of life and fitness.

The Parks, Recreation and Open Space Plan identifies the principle greenway components that can inter-connect and weave the community together. *Figure 4-7* illustrates the basic structure of a greenway corridor. *Figure 4-8* identifies the typical elements of a greenway trail-head. *Figure 4-9* depicts a possible cross-section for a joint use roadway/bikeway facility running along the former Missouri-Pacific railroad bed, east of and parallel to US 69. Finally, *Figure 4-10* identifies a recommended cross-section for the proposed East/West Connector Road north of and parallel with I-20.



*Parks/Recreation Open Space Plan Figure 4-6*



*Greenway Corridor Figure 4-7*

*Greenway Trailhead Figure 4-8*





*"Rails to Trails" Figure 4-9*  
*Boulevard with Bikway Section Figure 4-10*

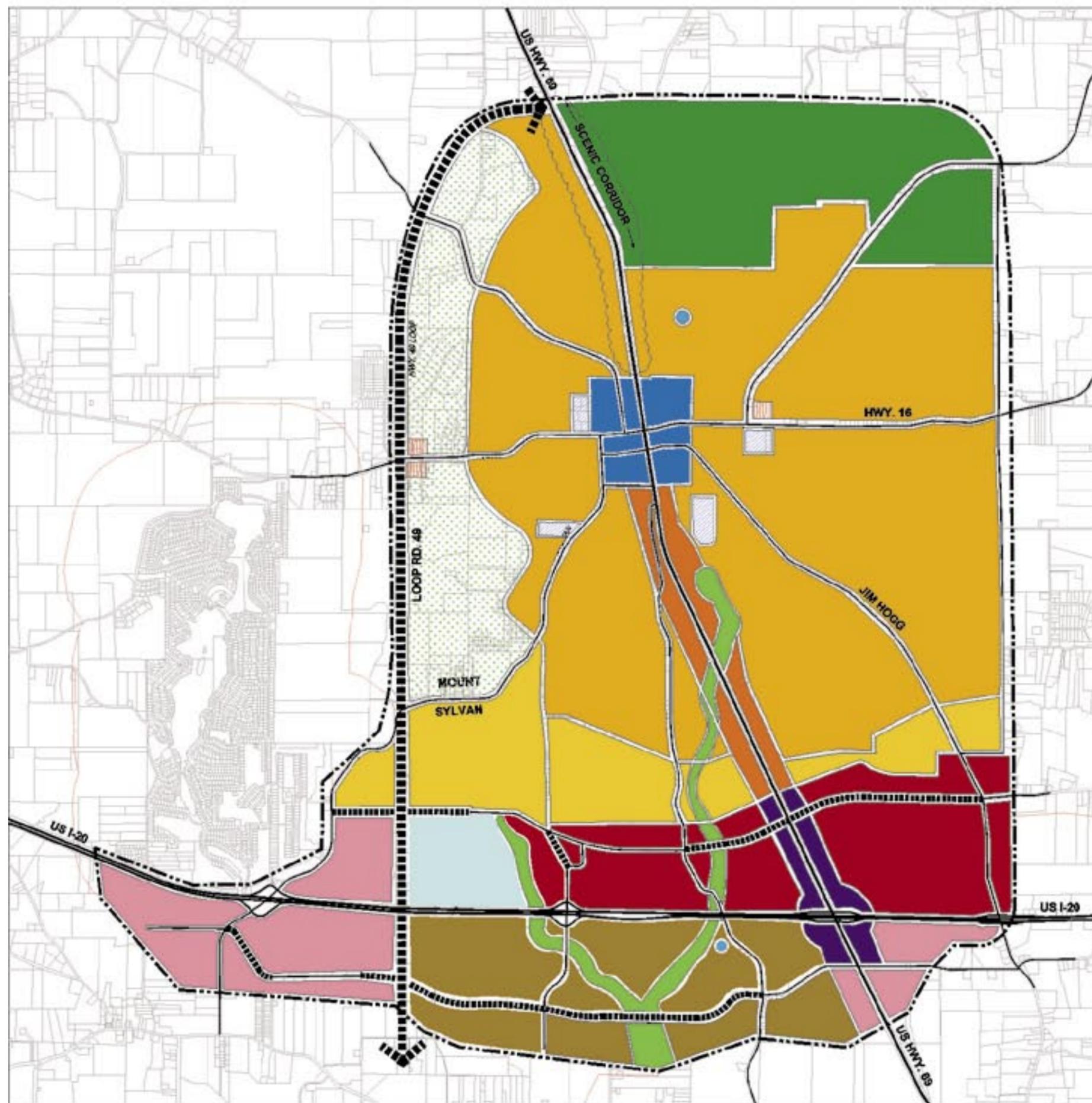




# LINDALE SECOND CENTURY COMPREHENSIVE PLAN

## Future Land Use Map

Figure 4-1



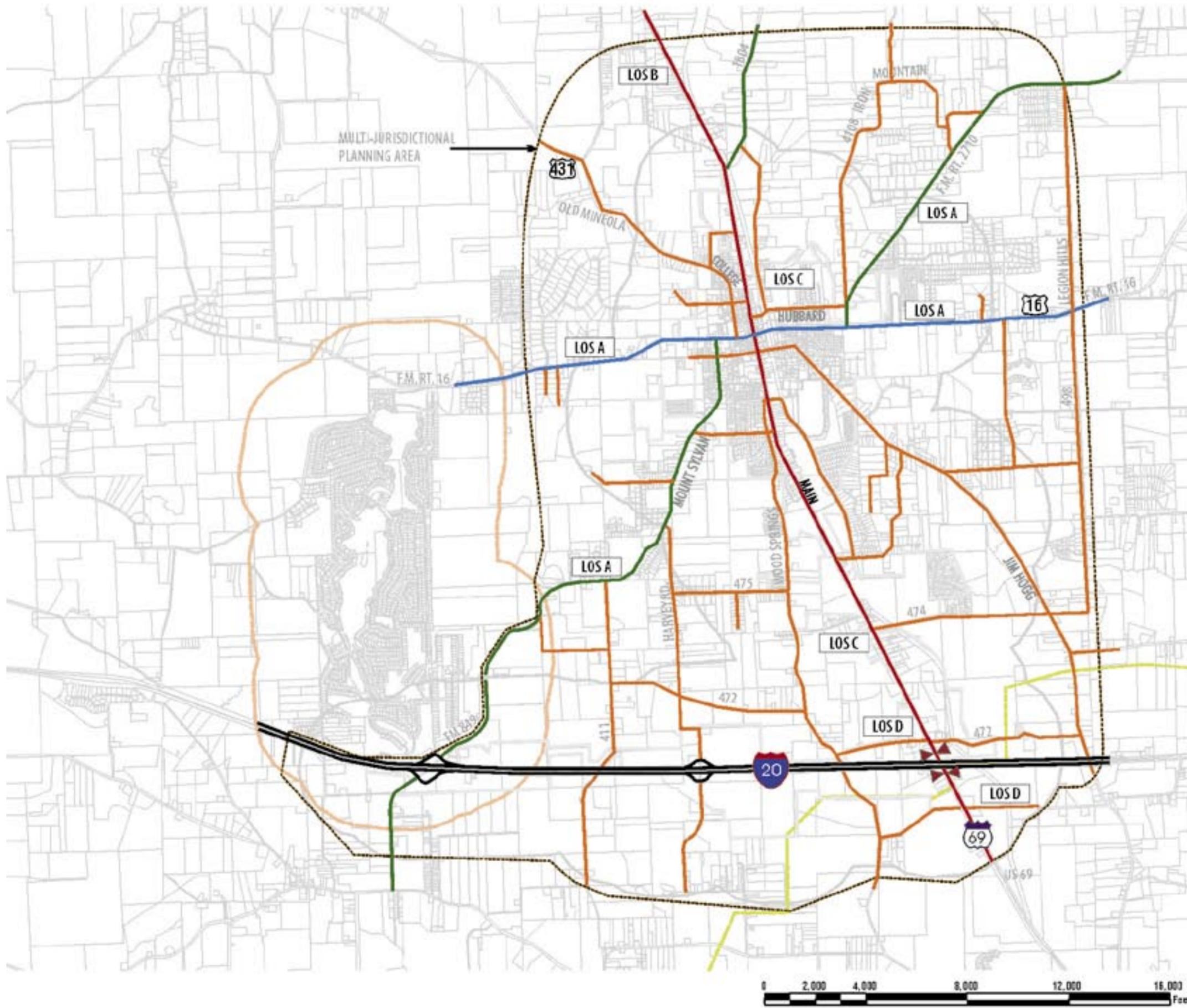
Legend	
	Conservation Buffer
	Loop Road 49 Corridor
	Farmed & Agricultural
	Low/Medium Density Residential
	High Density Residential
	Transportation/Distribution Center
	Downtown Mixed Use
	Waste Water Treatment
	Institutional/P.D.
	School
	I-20/Hwy. 69 Gateway
	US 69 Corridor
	I-20 North Parallel Corridor
	Mixed Use Center
	Neighborhood Commercial
	Existing Thoroughfare
	Proposed Thoroughfare
	Proposed Loop Rd. 49 Ltd. Access Thoroughfare
	Planning Area Boundary





LINDALE SECOND CENTURY  
COMPREHENSIVE PLAN

EXISTING TRANSPORTATION/  
MOBILITY PLAN  
Figure 4-2



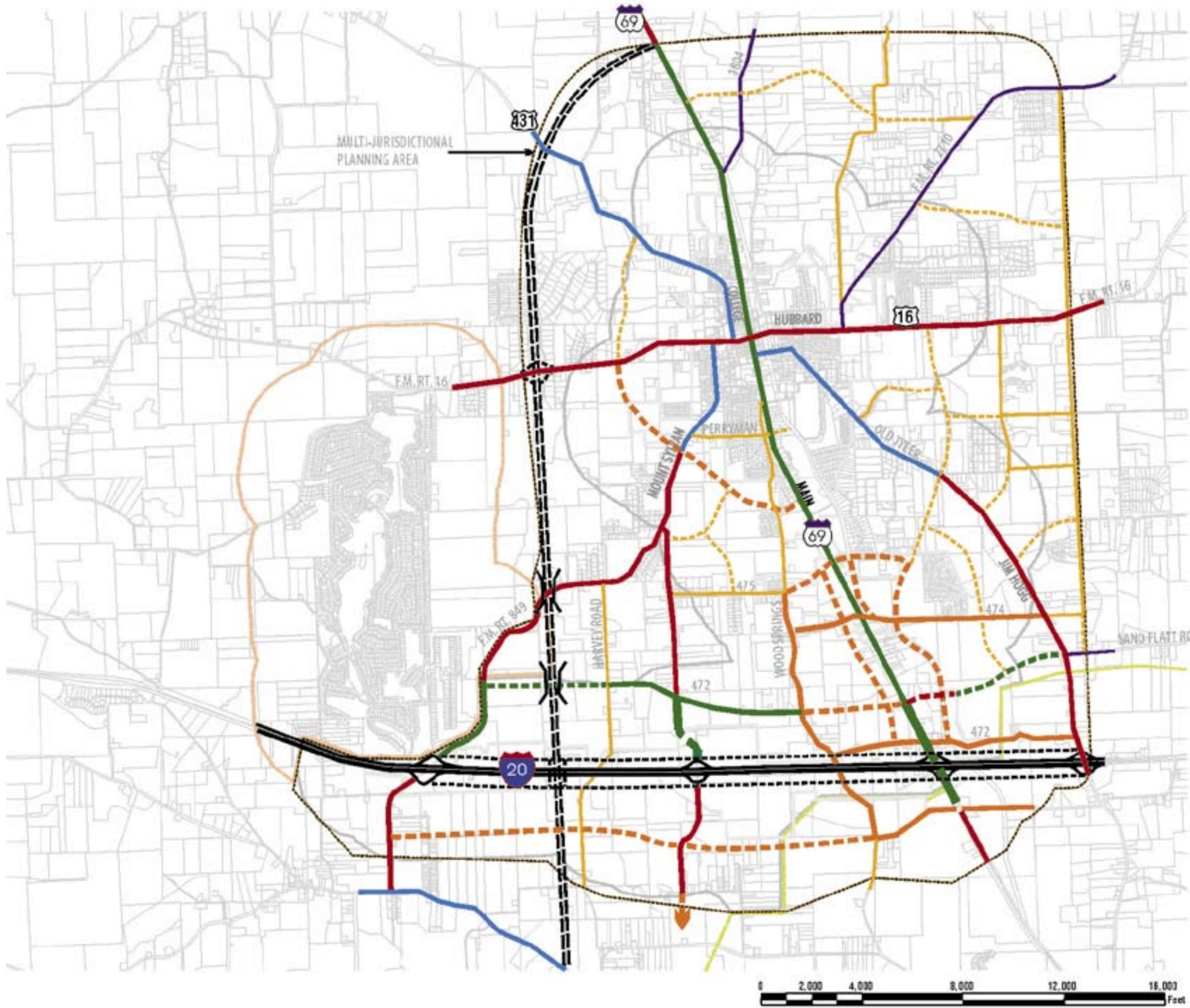
- Legend**
- Parcel Lines
  - Lindale City Limits
  - Lindale ETJ Boundary
  - ETJ - Tyler
  - ETJ - Hawi
  - Interstate
  - US Highway
  - State Highway
  - Farm to Market
  - County Road
  - LOS
  - Congestion Areas





LINDALE SECOND CENTURY  
COMPREHENSIVE PLAN

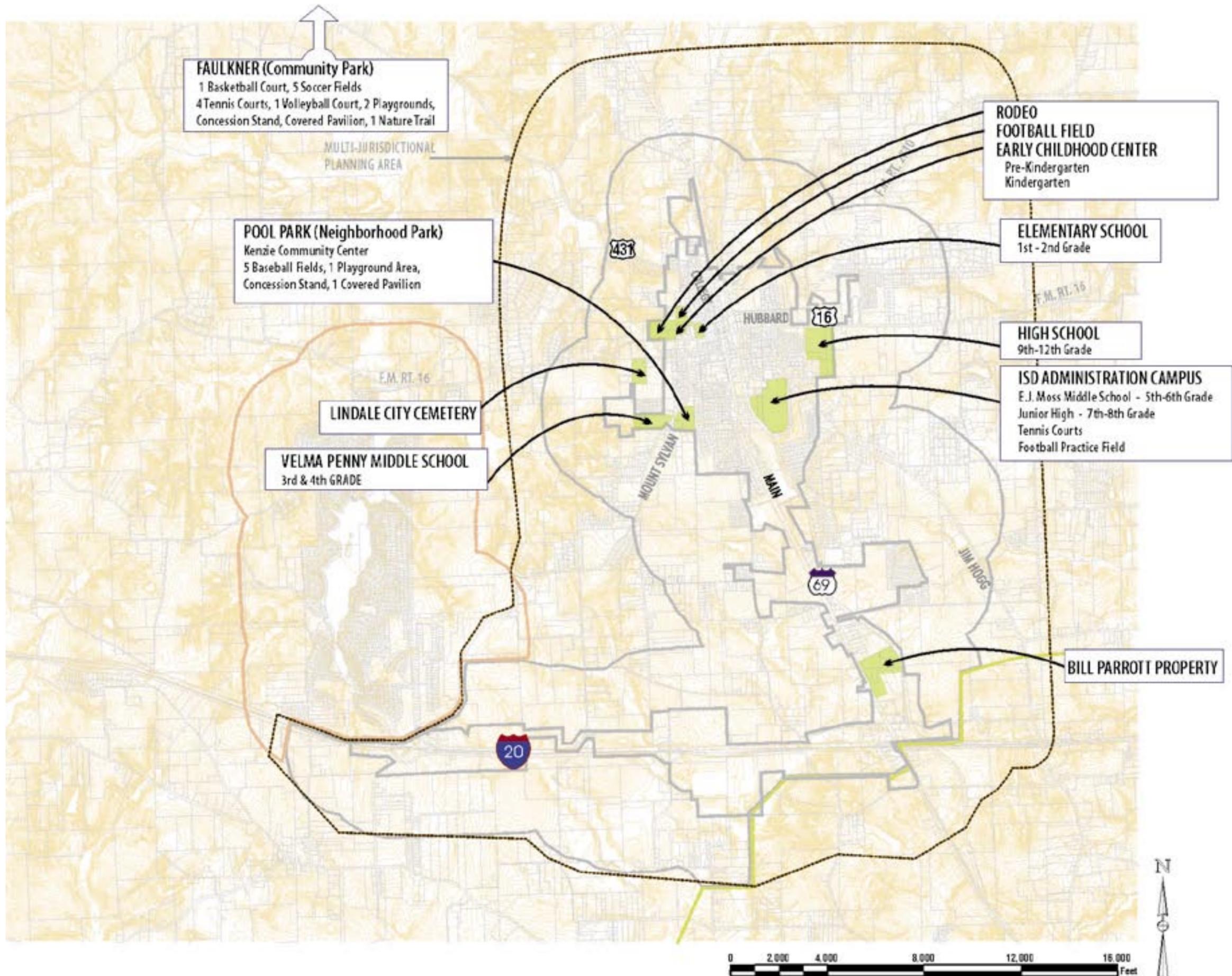
TRANSPORTATION/MOBILITY  
PLAN  
Figure 4-4



Legend

- Parcel Lines
- Lindale City Limits
- Lindale ETJ Boundary
- ETJ - Tyler
- ETJ - Hawt
- Interstate**
  - Interstate
  - Proposed Loop Road 49
- Arterial Streets**
  - 2-Lane
  - Proposed 2-Lane
  - 4-Lane
- Arterial Boulevards**
  - 4-Lane
  - Proposed 4-Lane
  - 6-Lane
  - Proposed 6-Lane
- Suburban/Rural Arterials**
  - 2-Lane
- Collectors**
  - 2-Lane
  - Proposed 2-Lane
  - 4-Lane
  - Proposed 4-Lane



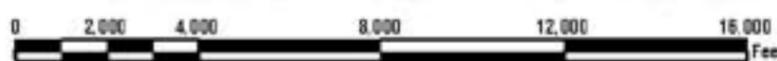


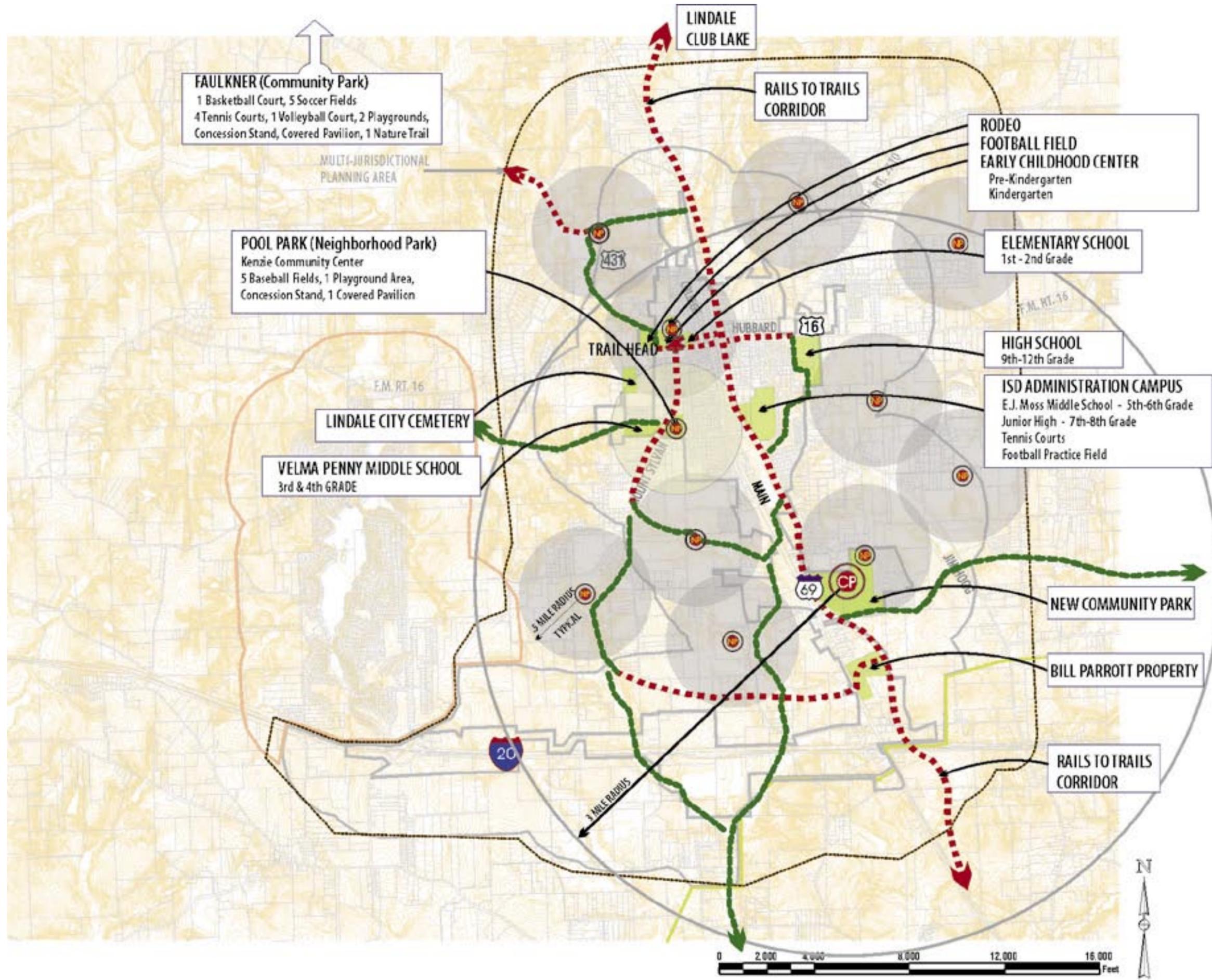
**LINDALE SECOND CENTURY  
 COMPREHENSIVE PLAN**

**EXISTING PARKS /RECREATION/  
 COMMUNITY FACILITIES**

Figure 4-5

- Legend**
- Parcel Lines
  - Lindale City Limits
  - Lindale ETJ Boundary
  - Topography
  - ETJ - Tyler
  - ETJ - Hawt





**FAULKNER (Community Park)**  
 1 Basketball Court, 5 Soccer Fields  
 4 Tennis Courts, 1 Volleyball Court, 2 Playgrounds,  
 Concession Stand, Covered Pavilion, 1 Nature Trail

**POOL PARK (Neighborhood Park)**  
 Kenzie Community Center  
 5 Baseball Fields, 1 Playground Area,  
 Concession Stand, 1 Covered Pavilion

**LINDALE CITY CEMETERY**

**VELMA PENNY MIDDLE SCHOOL**  
 3rd & 4th GRADE

**LINDALE CLUB LAKE**

**RAILS TO TRAILS CORRIDOR**

**RODEO FOOTBALL FIELD EARLY CHILDHOOD CENTER**  
 Pre-Kindergarten  
 Kindergarten

**ELEMENTARY SCHOOL**  
 1st - 2nd Grade

**HIGH SCHOOL**  
 9th - 12th Grade

**ISD ADMINISTRATION CAMPUS**  
 E.J. Moss Middle School - 5th-6th Grade  
 Junior High - 7th-8th Grade  
 Tennis Courts  
 Football Practice Field

**NEW COMMUNITY PARK**

**BILL PARROTT PROPERTY**

**RAILS TO TRAILS CORRIDOR**



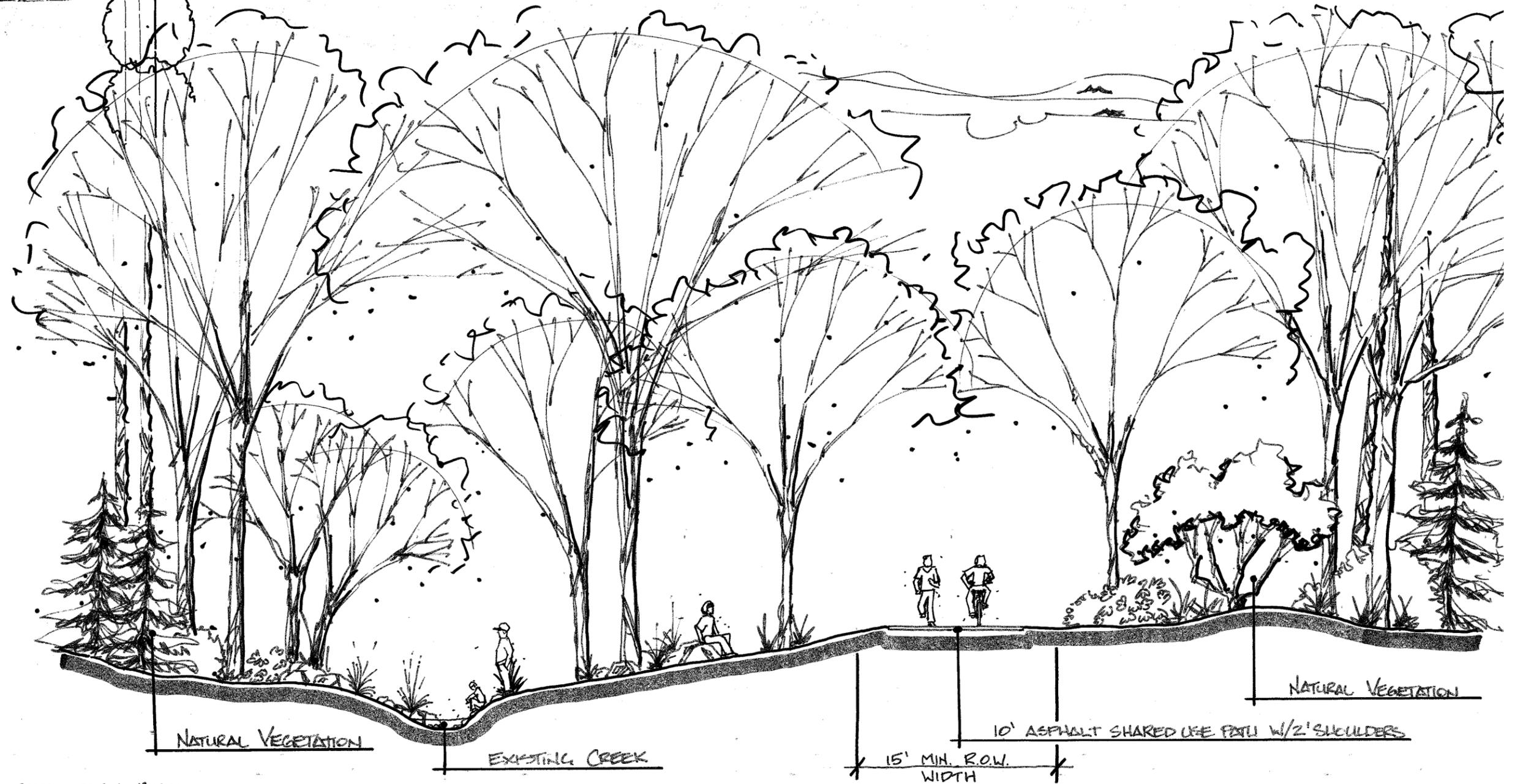
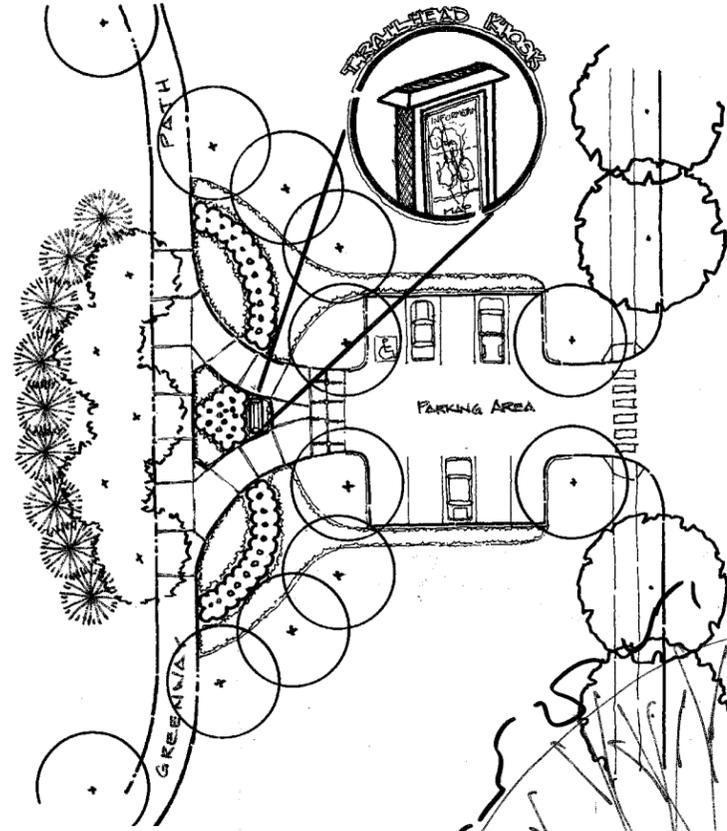
**LINDALE SECOND CENTURY COMPREHENSIVE PLAN**

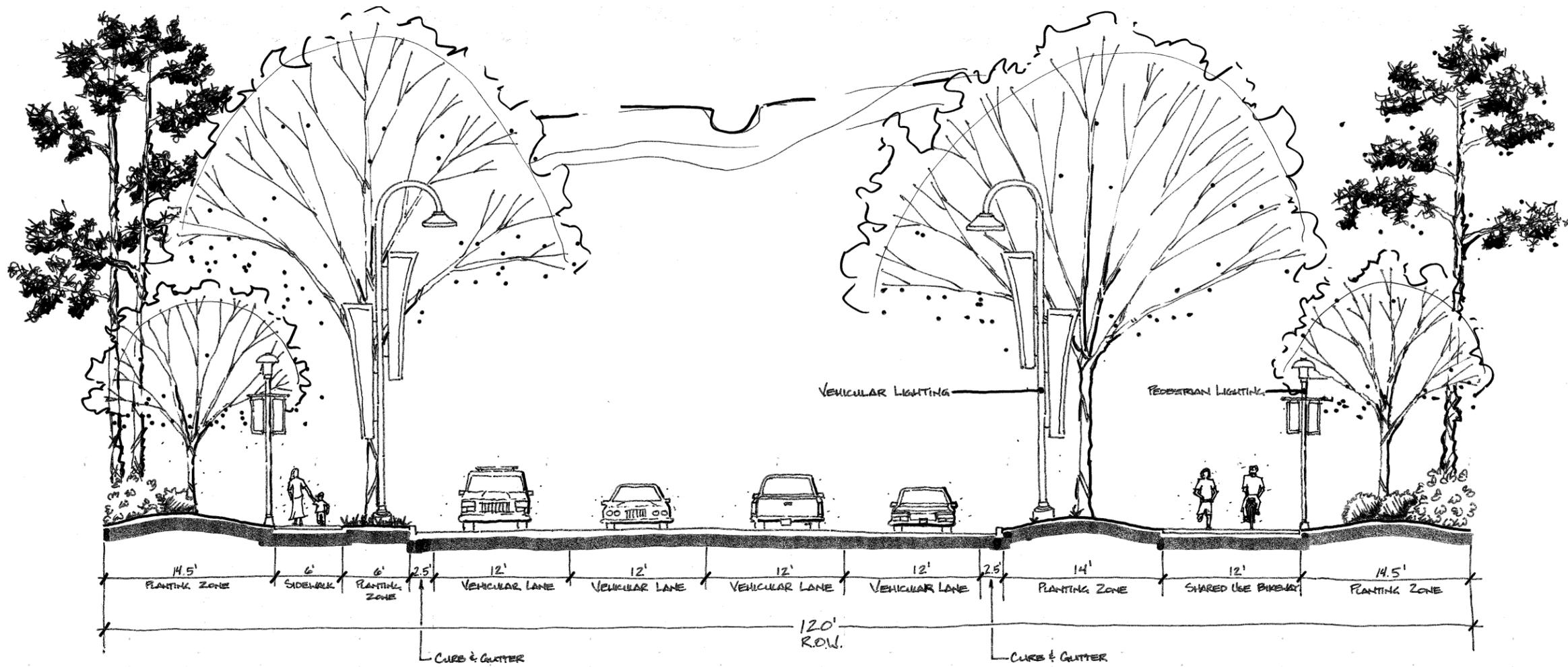
**PARKS / RECREATION OPEN SPACE PLAN**  
 Figure 4-6

**Legend**

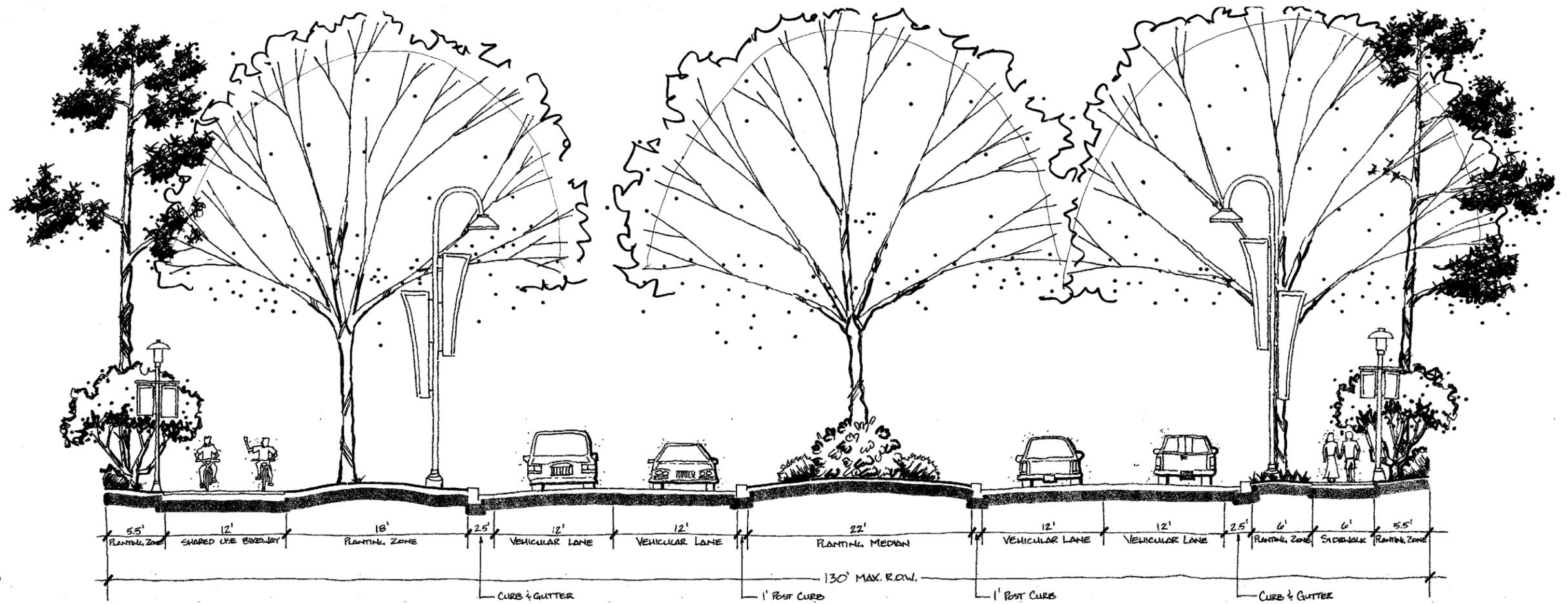
- Parcel Lines
- Lindale City Limits
- Lindale ETJ Boundary
- Topography
- ETJ - Tyler
- ETJ - Rawl
- Neighborhood Park
- Community Park
- Existing Park (.5 mile radius)
- Proposed Park (.5 mile radius)
- Bike Lanes/Sidewalks
- Greenway/Bikeway







"Rails to Trails" Figure 4-9



Boulevard with Bikeway Section Figure 4-10

# **Chapter 5 - Community Design Guidelines**





## Chapter 5 - Community Design Guidelines

LINDALE SECOND CENTURY COMPREHENSIVE PLAN

### Design Guidelines – Downtown

Downtown evolved as a crossroads activity center. The intersection of Hwys. 69 and 16 provided the shape with the more intensive commercial uses occupying the center and other supporting uses locating along Hwys. 69 and 16 for a distance of one to two blocks. Residential uses were grouped in surrounding blocks with the school nearby. Industrial uses were located between downtown and the railroad terminal. The close proximity of uses made downtown easily accessible for pedestrians and it created a sense of community. Downtown was and continues to be the heart of the community.

In enhancing downtown's role as the heart of the community, there are six main objectives related to use and design.

1. Maintain the governmental and communal (i.e. meeting and celebratory) functions in downtown
2. Link the educational, cultural and recreational functions in downtown
3. Create a complementary mixture of commercial functions that are unique to and supportive of downtown.
4. Maintain the quality and expand the opportunity of residential functions
5. Maintain the pedestrian scale of development and ensure pedestrian accessibility among all functions in downtown
6. Integrate the design of all functions so that there is cohesiveness in use and appearance.

### Civic Center

In maintaining the governmental services center in downtown, it is recommended they be located just east of the existing City Hall site. Through the city's ownership of parcels in the area there is potential for land assembly and redevelopment.

The preferred location at the intersect of Commerce and Valley Streets is intended to create a visual and activity focal point. Valley Street provides a linkage with the elementary school and the adjacent sports center. Commerce Street provides a linkage with the proposed greenway extension of the former railroad to the south.

The proposed governmental services center should provide a combination of administrative, large community meeting, cultural and activity space. The buildings should be

sited so they provide the following.

- A visual terminus looking eastward along Valley Street and northward along Commerce Street
- A public plaza that provides an outdoor celebration/festival space and casual seating and games
- An opening that connects directly with the former cannery site's reuse and continues the public plaza
- Parking provided in several smaller lots that can be shared with other uses
- Vehicular access from Valley, Commerce and North Streets
- Reuse of the small architecturally significant masonry building as a regional museum subject to it being structurally sound

### Former Cannery

The former cannery has reuse potential as a commercial mall. Activities that might be included are.

- Retail (i.e. outlet's mall)
- Arts and crafts
- Entertainment
- Indoor farmers market

Access to the former cannery should be provided through an enhanced entry across from Mallory Street. In addition, vehicular access should be provided from North Street and a pedestrian connection provided with the Civic Center. The North Street access should be designed so as to identify and serve both the former cannery and the Civic Center.

Additional parking should be provided in conjunction with Industrial Street. Provisions should allow sharing between the former cannery and the Civic Center.

### Existing Commercial Center

The existing commercial center consists mainly of activities along Main Street (Hwy.69) and Hwy. 16 for a distance of one to two blocks. While the Plan encourages conserving most of the older buildings, there are a few locations that are recommended for redevelopment. In addition, two vacant or temporary use locations are recommended for infill development. The sites recommended for redevelopment



ment and infill are identified as follows.

- Main and Valley Streets southwest corner
- Main and North Streets northeast corner
- Hwy. 16 and Commerce Street northwest corner
- Main and Valley Streets southeast corner
- Main and Van Streets southwest corner

Each of the redevelopment and infill sites should be built to the streetside property line. In order to maximize the building site, parking should be provided to the rear of buildings in shared parking lots. The height and architectural style should be compatible with the older buildings in the commercial center.

### **Main Street**

Main Street (Hwy. 69) has an existing configuration of two through-lanes in each direction and one center turn lane. While the lane configuration is to remain, several improvements are recommended.

- New sidewalks which, in some locations, need to be widened to allow street furniture
- On-street parallel parking on both sides of the street
- Bulb extensions of the curbs located at the ends and mid-points of the block
- Trees planted in the bulb extension
- Street furniture
- New lighting poles with pennant fittings
- Intersections replaced with decorative paving
- Handicapped improvements for sidewalks

### **Highway 16**

Highway 16 has an existing configuration of one through-lane in each direction and one center turn lane. While the lane configuration is to remain, several improvements are recommended.

- New and widened sidewalks
- On-street parking with the exception of the southwest quadrant of the Main and 16<sup>th</sup> Street intersection
- Bulb extensions of the curbs located at the ends and mid-points of the block
- Trees planted in the bulb extensions
- Street furniture
- New lighting poles with pennant fittings

- Intersections replaced with decorative paving
- Handicapped improvements for sidewalks

### **Valley Street Pedestrianway**

It is recommended that Valley Street provide a pedestrianway between the proposed Civic Center and the elementary school/adjacent sports center. The pedestrianway is intended to visually and physically link the two important functions. The following improvements are recommended.

- New sidewalks
- Trees planted along both sides of the street
- New pedestrian-scale lighting poles
- Street intersections replaced with decorative paving
- Handicapped improvements for sidewalks

### **Commerce Street Pedestrianway**

It is recommended that Commerce Street provide a pedestrianway between the proposed Civic Center and the proposed greenway associated with the former railroad. The pedestrianway is intended to physically connect downtown and the pedestrian access provided by the greenway. The pedestrianway is also intended to visually link the Civic Center and its vehicular access by Commerce Street. The following improvements are recommended.

- New sidewalks
- Trees planted on both sides of the street
- New pedestrian-scale lighting poles
- Handicapped improvements for sidewalks
- Street furniture

### **Other Pedestrianways**

In order to make downtown more pedestrian-friendly overall and to link major functions, two other locations are recommended for pedestrian improvements.

- College Street between Hwy. 16 and Valley Street
- Old Mineola Hwy. between Hwy. 16 and North Street

The following improvements are recommended.

- New sidewalks
- Trees planted on both sides of the street
- New pedestrian-scale lighting poles
- Handicapped improvements for sidewalks



### **Water Towers**

The two water towers are an important part of Lindale's history. They are a symbol for the community and mark the location of downtown. The following improvements are recommended in conjunction with the water towers.

- Special effect up-lighting
- Pennant fittings
- Lighting platforms for use in directing spot lighting for outdoor events at the proposed Civic Center

### **Outdoor Farmers Market**

An outdoor farmers market is recommended in downtown for seasonal produce and flowers. A location on Industrial Street near the North Street intersection is preferred because of its close proximity to proposed reuse of the former cannery. An open shelter is recommended that would allow pickup trucks to back-up and to sell from their beds.

### **Mini-Park**

A mini-park is recommended at the southwest intersection of Valley and College Streets. The location would provide a resting area along the proposed Valley Street pedestrianway. It would also provide a recreational area for near-by residents. The mini-park should include the following improvements.

- Seating area
- Small playground
- Shade trees

### **Parking**

It is intended that the proposed on-street parking improvements serve as short-term provisions in front of businesses along Main Street and Hwy. 16. This convenience of parking is essential to small businesses in downtown.

Longer-term parking should be provided collectively in shared parking lots. The lots should be located behind buildings with signage on the street directing their access. Parking lots associated with churches in downtown are ideal for sharing because businesses and churches are normally open at difference hours.





*Downtown Civic Center Plan Figure 5-1*





*Downtown Streetscape Enlargement Figure 5-2*





*Downtown Section AA Figure 5-3*





*Downtown Section BB Figure 5-4*





### Design Guidelines- Highway 69

As the linkage between downtown and the I-20/69 gateway, it is recommended that the Hwy. 69 corridor's appearance be enhanced. The existing corridor has a mixture of older and newer development with varying setback, building orientation and signage. The highway also has varying pavement widths and mostly uncontrolled curb cuts. There is a general absence of landscaping in the developed areas.

In enhancing the corridor's appearance, there are three main objectives related to use and design.

1. Create a complementary mixture of residential, institutional and highway oriented commercial uses
2. Provide access management to maintain the efficiency of traffic movement in avoiding the need for additional lanes
3. Integrate the design of all development so that there is a cohesiveness in use and appearance

### Divided Median and Landscaping

A divided median is recommended for Hwy. 69. The median should extend the length of the corridor between downtown and the I-20/69 gateway. The following elements are included.

- Grassy median with continuous trees and low masonry/stone walls at intersections
- Low plant materials of a similar type between curb cuts

### Natural Vistas

The vistas associated with the lake and large areas of natural growth should be maintained. New buildings and parking should be sited so that they do not obstruct the view from the highway.

### Building Setback and Orientation

Future building setbacks should be similar. The larger setbacks associated with existing residential along the west side of Hwy. 69 provides an attractive sense of openness.

Future buildings should be sited so that their longer faces are oriented toward the highway. Main entries should be oriented toward the highway unless they are part of a group of buildings.

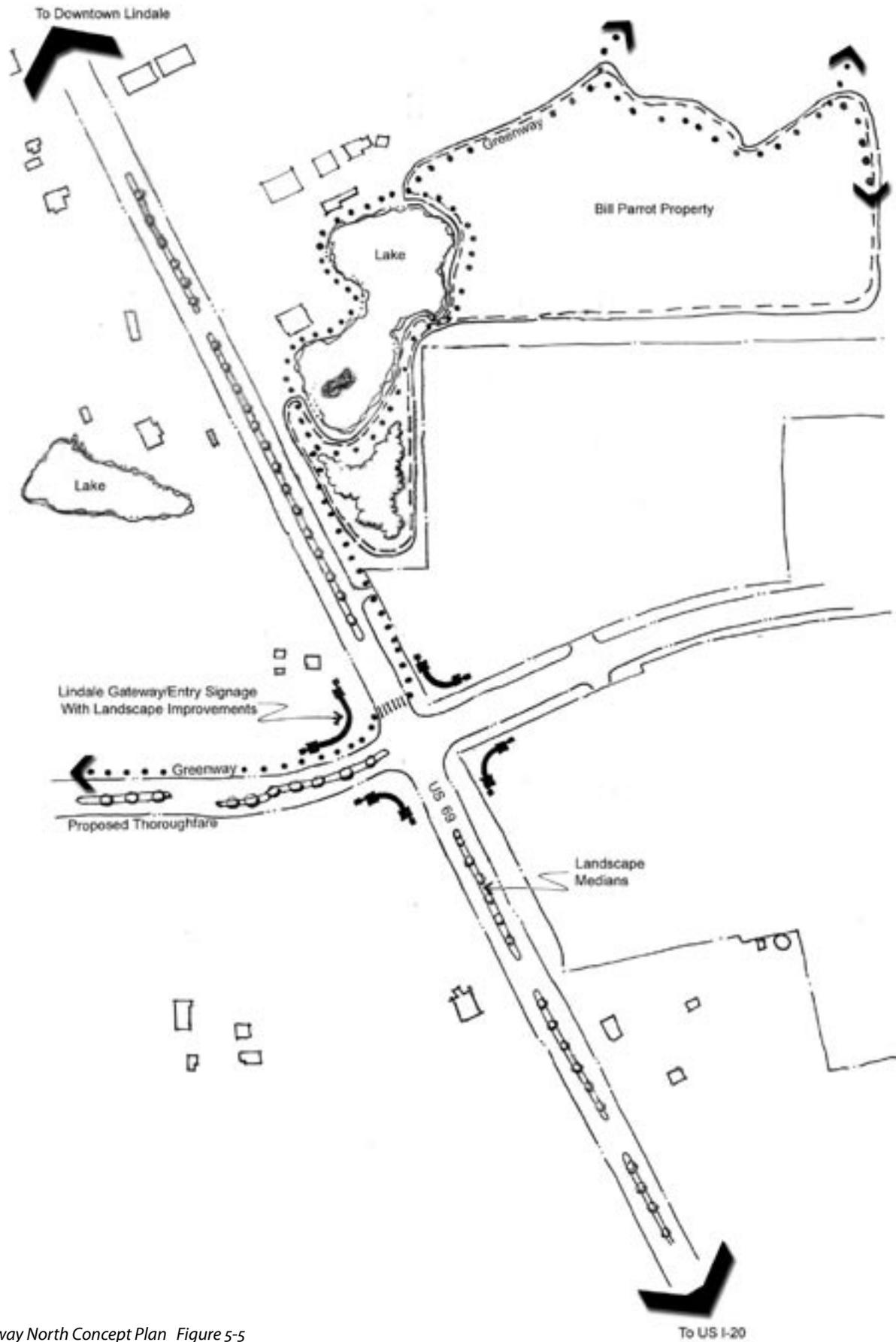
Future parking should be located so as to minimize its visibility from the highway. Convenience parking in the front of the building should be limited. Longer-term parking should be located to the side and rear of buildings.

### Curb Cuts

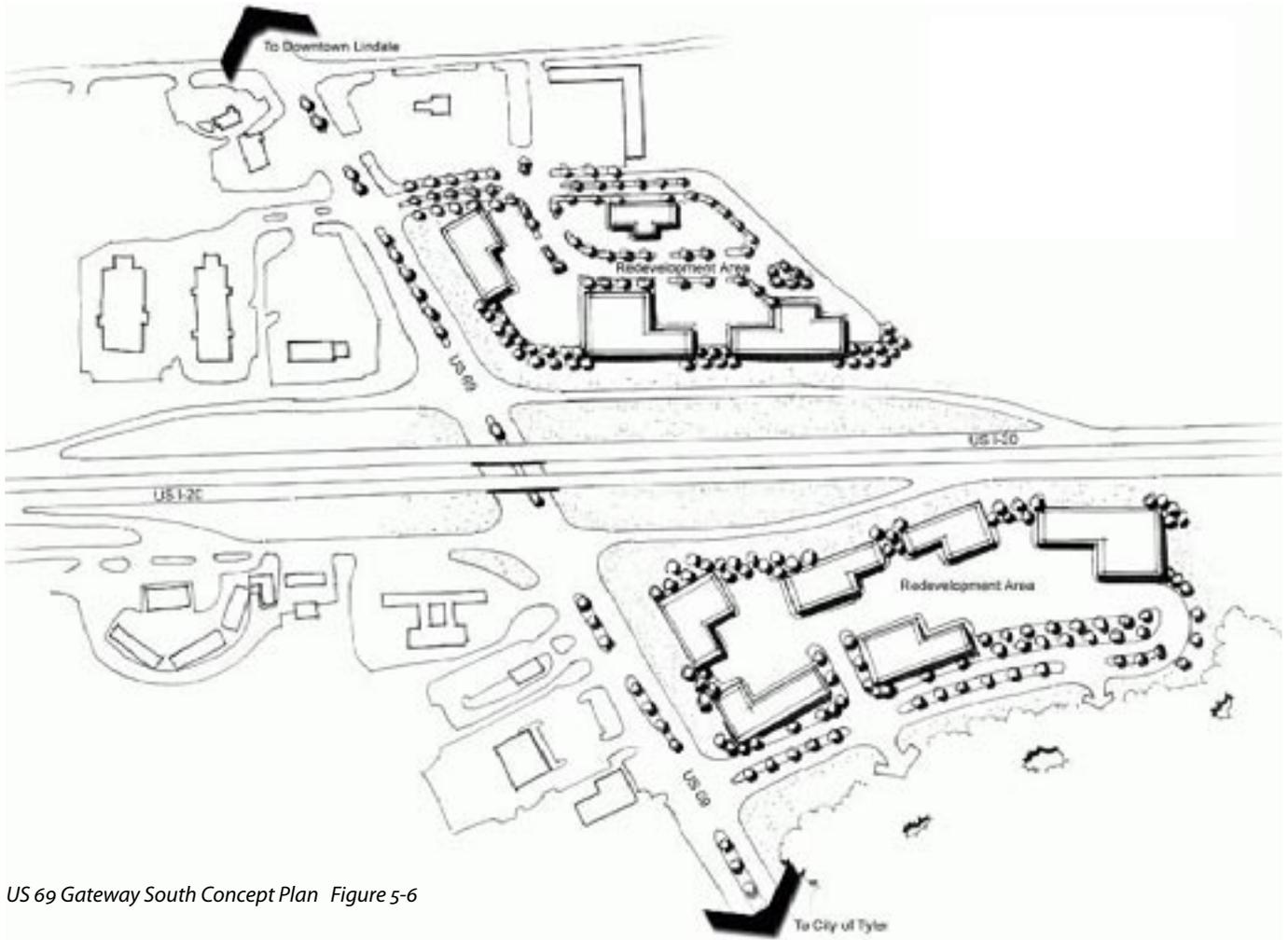
Curb cuts should be limited and their location easily identified. Where uses are in close proximity on adjoining properties, they should share access. Uses in close proximity should also have connecting drives.

### Signage

Existing and future development adjacent to Hwy. 69 is of a neighborhood scale. Future signage should be limited in height and size so as to be compatible with the neighborhood scale.



US 69 Gateway North Concept Plan Figure 5-5



US 69 Gateway South Concept Plan Figure 5-6



### Design Guidelines – I-20/Hwy. 69 Gateway

As the community's principal access route, the I-20/Hwy. 69 gateway should provide an attractive and unified appearance. The existing access is mostly undefined. The large and numerous curb cuts are confusing. Building set-backs vary considerably. Landscaping is minimal. There is community identification signage.

In enhancing the gateway's appearance, there are five main objectives related to use and design.

1. Create a complementary mixture of highway-oriented commercial uses through limited redevelopment
2. Provide access management to provide identification and safety
3. Provide signage and design features that identify the community's access
4. Integrate the gateway's access with the proposed parallel roads
5. Integrate the design of all development so that there is a cohesiveness in use and appearance

### Northeast Quadrant Redevelopment

It is recommended that the area bordering the I-20 westbound ramp be redeveloped. The redevelopment is subject to the relocation of the existing truck stop.

The ramp should be redesigned so as to reduce the grade change. One option is to begin the ramp further east since there is no longer a need to maintain a height clearance over the former railroad.

The redevelopment should provide two to three building sites with greater visibility from the ramp. The sites should share an access drive with the existing fast-food establishment. Future establishments should be sited so that they provide a similar building line in defining the interchange.

#### Curb Cuts

Existing curb cuts within the northeast and northwest quadrants of the interchange should be consolidated. Their access should be clearly defined through the use of landscaping and ground signage.

Future curb cuts should also be consolidated and clearly defined. They should be spaced so as to allow a safe transition for vehicles using adjoining access points.

### North Parallel Corridor Intersection

The I-20/69 gateway also provides primary access for the proposed north parallel corridor. The proposed intersection should have large landscape features in each quadrant. In addition, the northwest quadrant should have a major sign identifying the community.

Future buildings should be sited so that they frame the corridor in providing a sense of arrival. Parking should not be located adjacent to the intersection unless it is screened by a decorative wall and/or landscaping.

### Divided Median and Landscaping

A continuation of the Hwy. 69 corridor divided median is recommended. The divided median should extend the length of the gateway. The median should be completely landscaped with low plant materials of a similar type.

### Decorative Lighting

The gateway should include decorative lighting. The following types and locations are recommended.

- Decorative street poles with pennant fittings
- Effect lighting for landscaping features and signage
- Effect lighting for buildings

### Hwy. 461 Intersection

The I-20/69 gateway also provides primary access to Hwy. 461 and its extension through the transportation/distribution center. The intersection should have large landscape features in each quadrant.

Future buildings should be sited so that they frame the intersection in providing a sense of arrival. Parking should not be located adjacent to the intersection unless it is screened by a decorative wall and/or landscaping.



**Building Setback and Orientation**

Future building setbacks should be similar. Buildings should be sited so that their longer faces are oriented toward the highway. Main entries should be oriented toward the highway unless they are part of a group of buildings.

Future parking should be located or screened so as to minimize its visibility from the highway. Larger parking lots should be located to the side and rear of buildings.





*Lindale Gateway/Entry Map Figure 5-7*





*Gateway Signage Concept 1 Figure 5-8*

*Gateway Signage Concept 2 Figure 5-9*





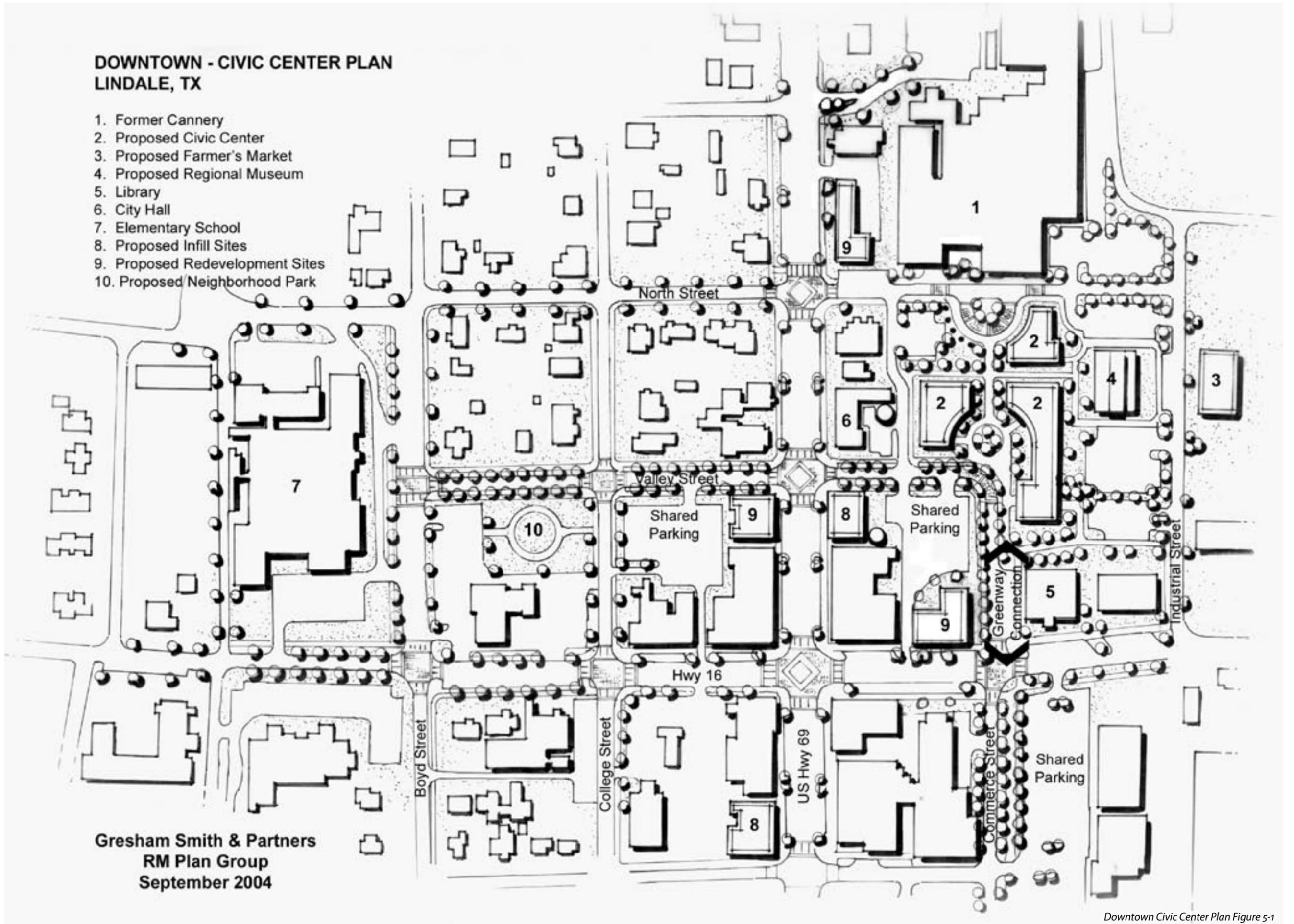
*Gateway Signage Concept 3 Figure 5-10*

*Gateway Signage Concept 4 Figure 5-11*



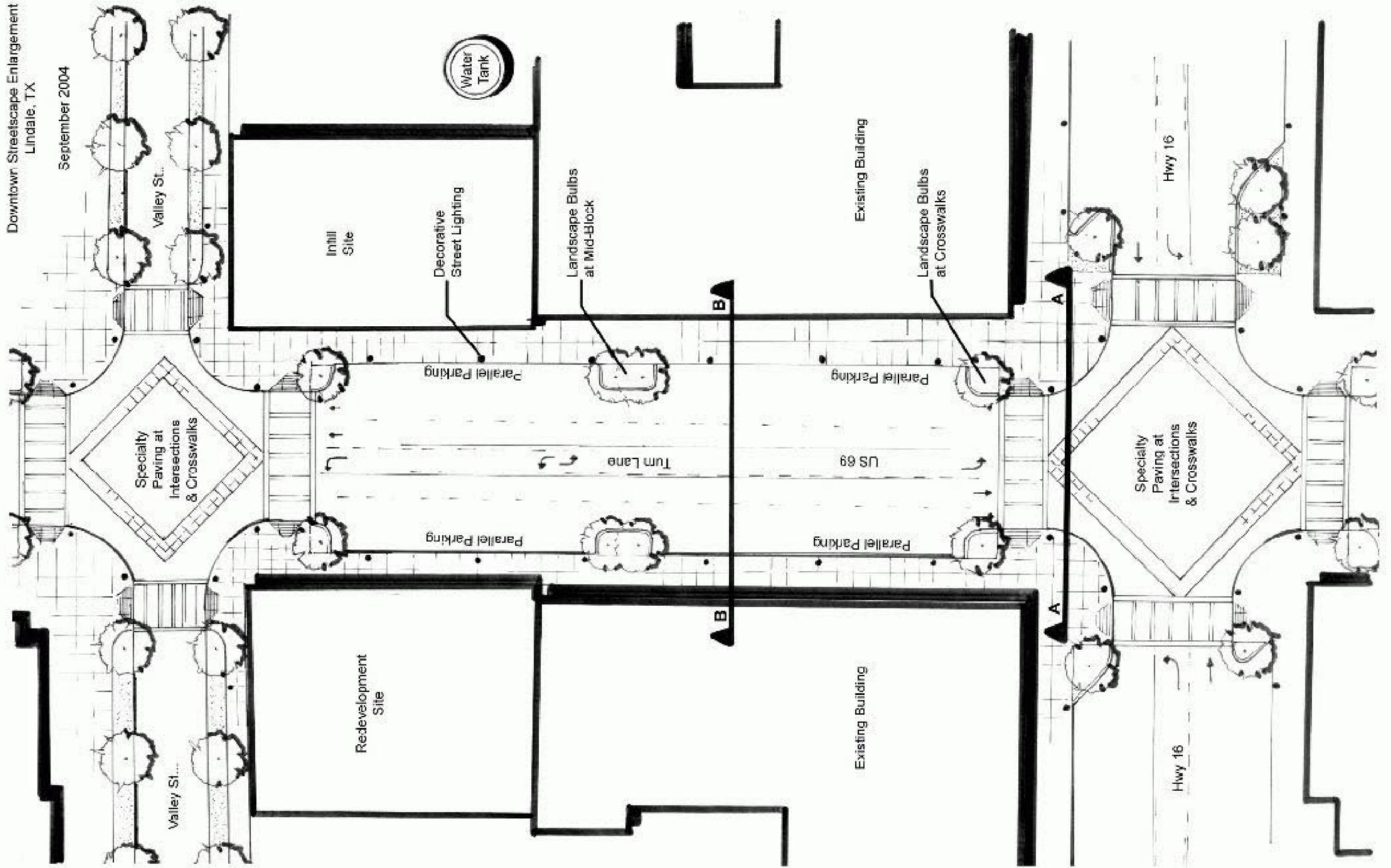
**DOWNTOWN - CIVIC CENTER PLAN  
LINDALE, TX**

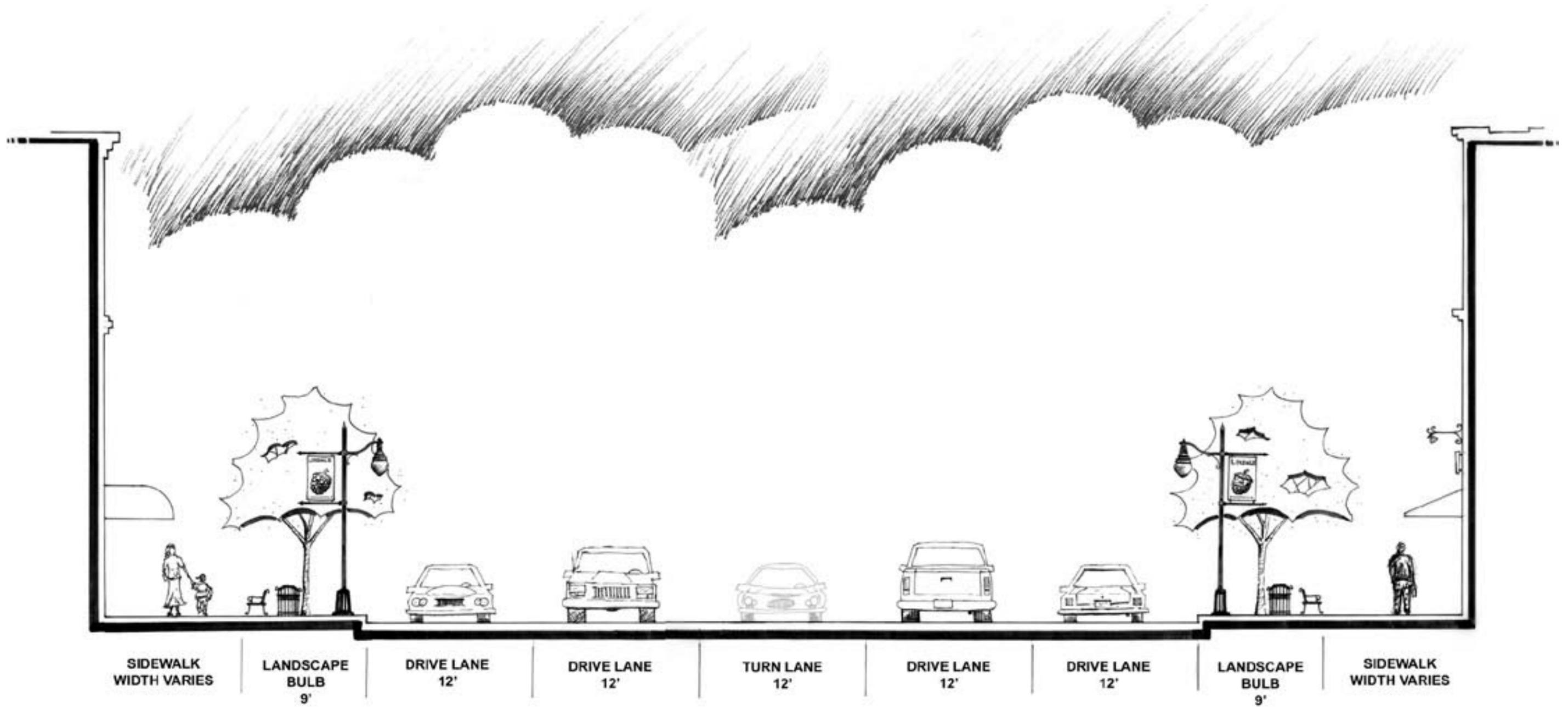
- 1. Former Cannery
- 2. Proposed Civic Center
- 3. Proposed Farmer's Market
- 4. Proposed Regional Museum
- 5. Library
- 6. City Hall
- 7. Elementary School
- 8. Proposed Infill Sites
- 9. Proposed Redevelopment Sites
- 10. Proposed Neighborhood Park



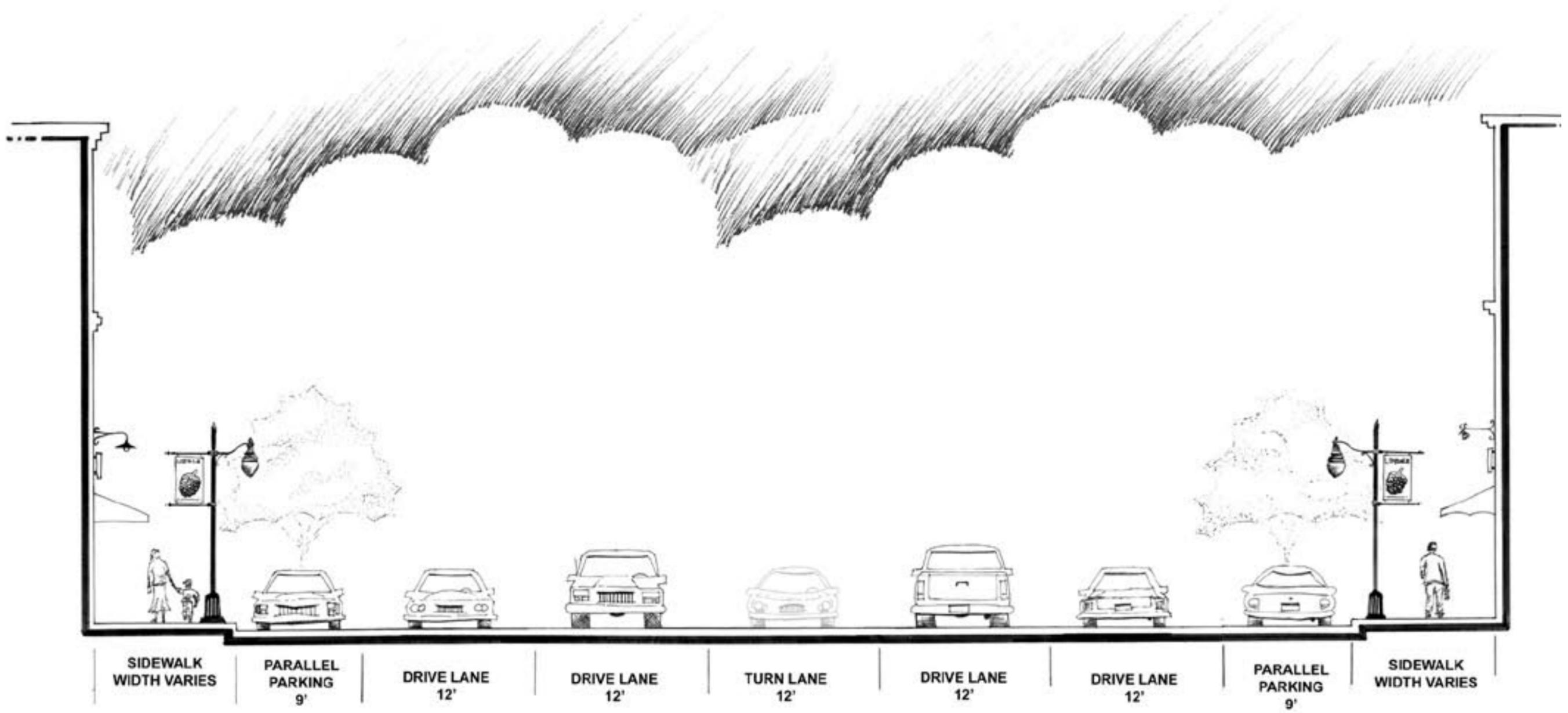
Gresham Smith & Partners  
RM Plan Group  
September 2004

September 2004





SECTION A-A

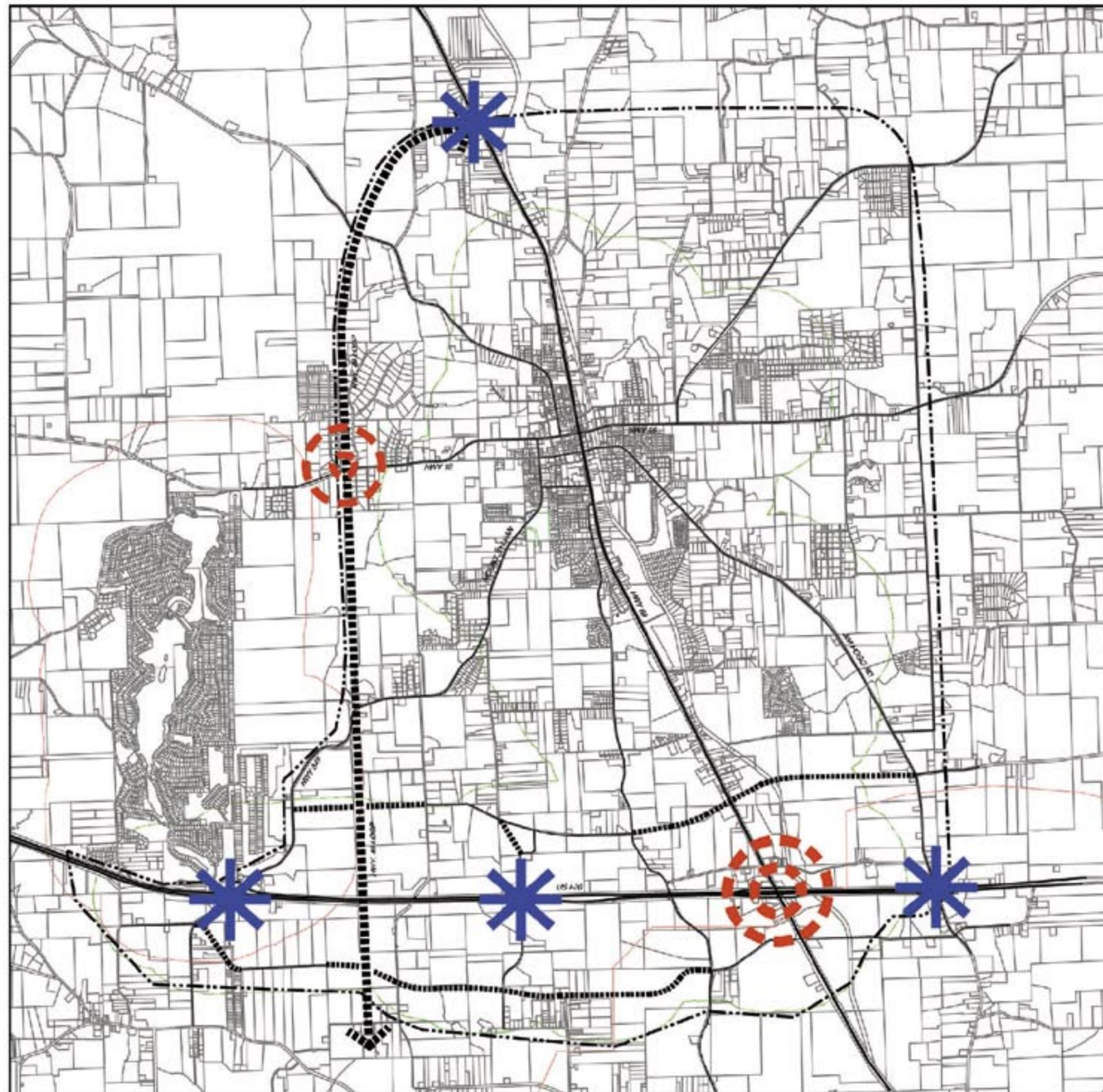


SECTION B-B



LINDALE SECOND CENTURY  
COMPREHENSIVE PLAN

LINDALE GATEWAY/  
ENTRY MAP  
Figure 5-7



Legend

-  Gateway
-  Entryway

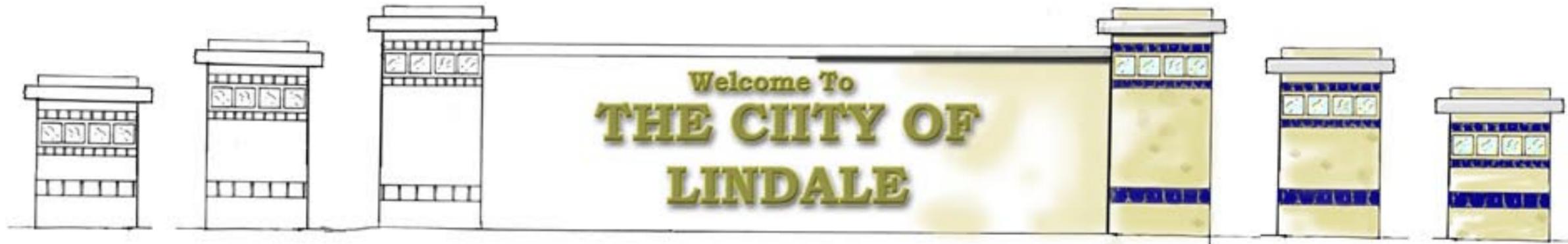




Gateway Signage Concept 1 Figure 5-8



Gateway Signage Concept 2 Figure 5-9



Gateway Signage Concept 3 Figure 5-10



Gateway Signage Concept 4 Figure 5-11

# **Chapter 6**

## **Community Infrastructure and Services**





## Chapter 6- Community Infrastructure & Services

LINDALE SECOND CENTURY COMPREHENSIVE PLAN

### Utility and Community Services Plan

A component of the comprehensive planning process is to estimate the long-term demands to be placed on the City's existing water, sewer and community services systems as a result of anticipated community growth patterns, compare estimated future demands with existing system capacities, identify gaps and deficiencies and offer potential strategies for meeting future demand requirements. The community services addressed by this Plan involve fire suppression, police staffing and library size.

At this level of study, the Plan is looking at the respective utility and service systems as a whole. For the water and sewer systems in particular, it must be acknowledged that geographic areas within the community will develop at different points in time and at differing rates of growth. While the land use component of this plan outlines a basic structure to govern the type and intensity of future land uses within the community, when and where that future development actually occurs is difficult if not impossible to predict. Growth patterns and rates of growth are influenced by a number of external factors, including regional and national economic conditions, local market demands, marketplace bias relating to location within the community, the willingness of owners to make land available for development and the corresponding asking price of the land.

For the water and sewer planning components, it is beyond the scope of this study to analyze in detail the individual components of the City's water and sewer systems. Detailed engineering modeling and cost-benefit analyses must be performed by the City's utility engineer for each localized service area within the overall system to identify the best approach to meet increased demand in the most cost-effective manner.

### Utility Planning Methodology

In attempting to estimate future water and sewer demands from a community-wide perspective, it is informative to start with the long-range land use plan and calculate demand based on a "build-out" scenario. While no single area of the community is likely to reach build-out status over the twenty year planning horizon of the Plan, it is helpful for

engineers that model and design individual components of a utility system to understand the overall potential demand that could be placed on the system at some future point in time. In this Plan, build-out demand scenarios for both water and sewer have been calculated by applying typical demand factors unique to specified land use classification types as defined by the Land Use Plan (see table entitled Water and Sewer Demands by Drainage Basin). For demand calculation purposes, an average water and sewer demand factor has been applied to the estimated area of each discrete land use classification lying within each of the mapped drainage sub-basins (see *Figure 6-1* and *Figure 6-2*). This approach allows identification of estimated build-out demands on three levels: just for the land use classification area itself; for the subject sub-basin (particularly valuable for sewer modeling); and for the overall comprehensive planning area.

While the designated planning horizon of this comprehensive plan is twenty years, the community has elected to formulate this Plan assuming a future population of 25,000 persons. When that population threshold will be reached is unknown. The population forecasts indicate that the community may reach a population of 10,000 to 15,000 persons by the year 2025. Since rates of growth will vary from year to year, this Plan is structured to identify estimated demands for utilities and other essential services according to defined population increments of 5000 persons. The accompanying tables identify demands for population levels of 5000, 10,000, 15,000, 20,000 and 25,000 persons.

For estimating water and sewer demands, average demand factors must be established. Water consumption is typically calculated at the average demand rate of 100 gallons per person per day. For residential land use areas, these factors are applied as a function of the average residential dwelling units per acre of land (density). For non-residential uses, demand and generation rates can vary by activity type. Therefore, different average rate factors are applied to retail, office and industrial uses based on typical floor area ratios applicable to each.

### Existing Water System

The City of Lindale currently owns and operates its own water treatment and distribution system. The City currently



serves a total of 1915 customers; 1309 residential and 215 non-residential customers located within the City limits; and 319 customers outside the City. The major elements associated with this system are identified on *Figure 6-3, Existing Water System*.

The City currently relies on a series of wells to provide water to the community. Water is drawn from the Carrizo-Wilcox aquifer. Four wells are currently utilized, all being located in the southerly half of the community. Storage facilities are located at each well head. *Table 6-1* identifies the average production yields and storage capacities associated with each well head, along with average daily demand rates. In addition, the City maintains an elevated water storage tank on the high ground in the downtown area, immediately behind the existing City Hall.

and Crystal service areas fall within Lindale’s current Extra Jurisdictional Planning (ETJ) area.

When the City of Lindale opts to annex new land areas into its incorporated boundaries, the City prefers to assume control of water services for those areas based on a negotiated compensation to the affected independent water provider. In many instances, the City is assuming responsibility for a sub-standard water distribution system that was not designed or constructed to adequately serve urban or suburban demand loads. In these situations the City often assumes responsibility for upgrading these systems to improve customer service and fire suppression needs. Fortunately, some independent water district providers are now beginning to install 6” and 8” services lines designed to meet future demand needs.

Table 6-1. Water System Inventory

CURRENT WATER SYSTEM	WATER WELL					TOTAL	TARGET DISTRIBUTION CENTER @ 0.35 MPD
	#4	#5	#6	#7			
DESIGN CAPACITY (GPD)	792,000	648,000	720,000	1,008,000	3,168,000		
AVG. DEMAND (GPD)	175,000	75,000	200,000	350,000	800,000	450,000	
TYPICAL PEAD DEMAND (GPD)	275,000	125,000	450,000	750,000	1,600,000	1,250,000	

CURRENT CONDITIONS	TOTAL CUSTOMERS	% OF CUSTOMERS
RESIDENTIAL (INSIDE CITY)	1,309	68.36%
COMMERCIAL (ALL OTHERS)	215	11.23%
OUTSIDE CITY	391	20.42%
TOTAL	1,915	100.00%

Average daily water usage per customer = 450,000 / 1,915 = 235 GPD

(Includes Water Loss)

Peak daily water usage per customer = 1,250,000 / 1,915 = 635 GPD

(Includes Water Loss)

Average persons per household for Lindale = 2.56 (2000 Census)

Three independent water districts provide services to outlying areas located beyond the existing City limits. Lindale Rural provides water generally to the east, south and southeast of the City. Duck Creek provides services to the northwest, and the Crystal district currently services Hide-A-Way Lake areas to the southwest. Portions of the existing Lindale Rural

### Water Planning Goals and Objectives

The following goals and objectives have been estimated for this Comprehensive Planning effort:

**Goal:** Plan and provide for a safe and adequate supply of potable water to meet the both the existing and future long-term needs of the entire community.



*Drainage Sub-Basins Figure 6-1*





*Utility Demand Sub-Districts Figure 6-2*





*Table 6-2A. Water and Sewer Demand by Drainage Sub-Basin*





*Table 6-2B. Water and Sewer Demand by Drainage Sub-Basin*





*Table 6-2C. Water and Sewer Demand by Drainage Sub-Basin*





*Table 6-2D. Water and Sewer Demand by Drainage Sub-Basin*





*Existing Water System Figure 6-3*





**Objective:** Take action to assume control of water distribution systems in areas annexed into the City limits.

**Objective:** Work with independent water district providers and the TECQ to ensure that all waters lines installed and constructed in areas designated for future incorporation into the City meet long term customer and fire suppression needs.

**Objective:** Develop a financial model designed to equitably and fairly compensate independent water providers when assuming control of their lines within newly incorporated areas.

**Objective:** Ensure that adequate water supplies are provided coincident with community growth and new development initiatives.

**Goal:** Guide future development in a manner that allows for the provision of essential water and sewer utility services in a cost effective and efficient manner.

**Objective:** design water extensions so as to provide the maximum service area coverage for the least amount of cost.

**Goal:** Plan for alternative sources of water to meet the community's long term service needs and reduce the City's dependency on single type sources.

### Water Master Plan

For long-range water planning, this Plan focuses on how the City of Lindale should address meeting the future water needs of its own community. Three independent utility districts (Crystal, Duck Creek and Lindale Rural) currently provide water to their respective service areas surrounding the existing City limits. Lindale's current Extra Territorial Jurisdiction (ETJ) growth area overlaps the service area of some of these independent providers. It is not within the scope of this Plan to address the complex logistical and financial issues associated with reconciling future City land annexations with current and future water service responsibilities. This Plan does assume that it is in the City's best long-term interests to be the sole

water provider to customers located within the City limits. If the City elects to assume this responsibility for future growth areas, the City will have to negotiate equitable terms of purchase with the respective independent providers based on detailed engineering modeling and a cost benefit analyses.

*Table 6-2* identifies estimated water demands per drainage sub-basin for both the 25,000 population benchmark of this Plan and for a hypothetical build out scenario. Average daily and peak daily demands are calculated based on specific demand rates for type 1 land use.

*Table 6-3* summarizes the community's estimated average and peak water demands according to the defined population benchmarks and a build-out scenario. The City's current water system produces an average of 3.168 million gallons per day (mgd). The current maximum peak water demand is approximately 1.6 mgd, equating to a current excess peak demand capacity of approximately 1.7 mgd. Assuming a planning population of 25,000 residents, an average water demand of 4.5 mgd and a peak demand of 7.2 mgd would be required. The build-out scenario would require an average demand of 17.9 mgd and a peak demand of 30 mgd.

The water demand estimates indicate that the City must increase available water resources as growth enters the population ranges of 10,000 and 15,000 persons. Based on the population growth forecasts, water yields provided by the four existing wells should prove adequate into the latter part of the year 2025 planning horizon.

Estimating overall water demands on the community-wide basis does not fully address future demand within specific sub-sectors of the community, however. The location of future demand loads within the drainage sub-basins of the City must also be evaluated. The City has made wise choices in locating its existing wells in the southern sector of the community. It is in the southern sector that the greatest demand for new development is anticipated given the excellent assess opportunities afforded by I-20 and its multiple interchanges into the community, the presence of existing water and sewer infrastructure in some portions of this area, and the general availability of land suitable for development.



Table 6-3. Estimated Water Demands<sup>(1)</sup>

Population	Water Demands	Residential (MGD)	Non-Residential (MGD)	Total Demand (MGD)	Water Available (MGD)	Surplus/Deficiency (MGD)
5,000	Average Demand	0.459	0.454	0.913	3.168	2.255
5,000	Peak Demand	0.987	0.454	1.441	3.168	1.727
10,000	Average Demand	0.918	0.907	1.825	3.168	1.343
10,000	Peak Demand	1.973	0.907	2.88	3.168	0.288
15,000	Average Demand	1.377	1.361	2.738	3.168	0.43
15,000	Peak Demand	2.956	1.361	4.317	3.168	-1.149
20,000	Average Demand	1.836	1.814	3.65	3.168	-0.482
20,000	Peak Demand	3.946	1.814	5.76	3.168	-2.592
25,000	Average Demand <sup>(2)</sup>	2.296	2.268	4.564	3.168	-1.396
25,000	Peak Demand <sup>(2)</sup>	4.933	2.268	7.201	3.168	-4.033
Built Out	Average Demand <sup>(3)</sup>	10.511	7.445	17.956	3.168	-14.788
Built Out	Peak Demand <sup>(3)</sup>	22.589	7.445	30.034	3.168	-26.866

(1) Lindale system only

(2) Assumes approximately 9,766 residential customers

(3) Assumes a total population of approximately 114,491 people and 44,723 residential customers

The Water Master Plan (*Figure 6-4*) anticipates that the highest demand for growth will occur in the Prairie Creek, Harvey Road, Long Brake and Cooks Creek sub-basins. From tax basis and employment standpoints alone, the City should encourage the development of additional commercial and transportation/distribution facilities along the I-20 corridor. To meet this anticipated increase in water demand, the City is currently planning to re-drill well No. 5 to further increase its capacity to serve developing areas east of US 69, including the Cooks Creek sub-basin. The City is also anticipating the future installation of a well in the western sector of the I-20 development corridor. These two projects would probably provide the City with adequate water capacity through the twenty year planning period. Actual yields generated from these two system enhancements will have to be analyzed to ascertain if these facilities can adequately serve the 25,000 population benchmark of this plan.

### Long Range Strategic Considerations

For the term of the twenty year planning period it would appear that the City's water capacity needs can be adequately

met by maintaining and expanding upon the existing well system. However, the City also should carefully evaluate the following strategic considerations to properly address the long term water needs of the growing community.

- Centralized Treatment

A long term option to treating water at each well head would be to consolidate treatment operations at a centralized facility and use the existing wells as a system manifold to feed that facility. Centralization of treatment may improve overall efficiencies by lowering system-wide operation and maintenance costs. A detailed cost-benefit analysis would need to be performed on such as conversion. A factor to be considered is that the existing water distribution system is designed and constructed with pipe diameters greatest at the point of initial distribution, the well head. Conversion to a centralized treatment facility would require the installation of high-capacity trunk lines from each well head to the treatment facility in addition to new distribution trunk lines to service areas.



*Water Master Map Figure 6-4*





- Regional Service Approach

Due to ever increasing environmental standards and escalating operations and maintenance costs, addressing the provision of water on a regional basis often proves to be a more cost-effective option for small and medium sized communities. As the largest municipality in the immediate region, the City of Tyler has an opportunity to lead a regional approach to water service in the greater Smith County area. Tyler has the advantage of size (economies of scale) and the fact that the city controls 25% of the water rights to Lake Palestine. The City of Dallas controls the remaining 75%. A long-term option for the City of Lindale is to enter into discussions with the City of Tyler and other independent utility providers in the immediate area to establish a regional-based utility system, perhaps under the auspices of a new regional operating authority.

- Dedicated Reservoirs

The option of constructing a new reservoir to serve as a long term source of water for the community continues to generate some discussion. The siting, permitting, design and construction of a water reservoir involve a significant commitment of specialized expertise, time and resources. Assessing the feasibility of constructing a reservoir from an engineering standpoint alone is a highly technical form of analysis that must address a number of factors such as the size and physical attributes (e.g. width and vertical relief) of the watershed basin, water quality, climatic considerations reservoir recharge rates, resource losses (e.g. due to evaporation), and a myriad of environment issues associate both with the land to be consumed by the impoundment and those lying downstream of the facility. The level of study and analysis required to assess the feasibility of reservoir construction is well beyond the scope of this planning effort.

Discussions to date about reservoir construction generally have focused on three local creek systems:

- Duck Creek: located northwest of the City, this is a relatively wide and shallow creek system located down stream from Hide A Way Lake, a septic tank community
- Mill Creek: located immediately north of the City, this relative deep creek currently accepts treated discharges from the City's North Waste Water Treatment Plant

- Saline Creek: located east of the City, this creek system drains the largest geographic water basin area of the three creek systems discussed; with the exception of some urban scale development that may occur within the Cooks Creek, North Prairie and American Legion sub-basins (all which would be served by sanitary sewer), the remaining lands within this relatively large watershed should remain rural in character, including Tyler State Park and the associated Tyler Lake which are located in the upper portions of this creek basin.

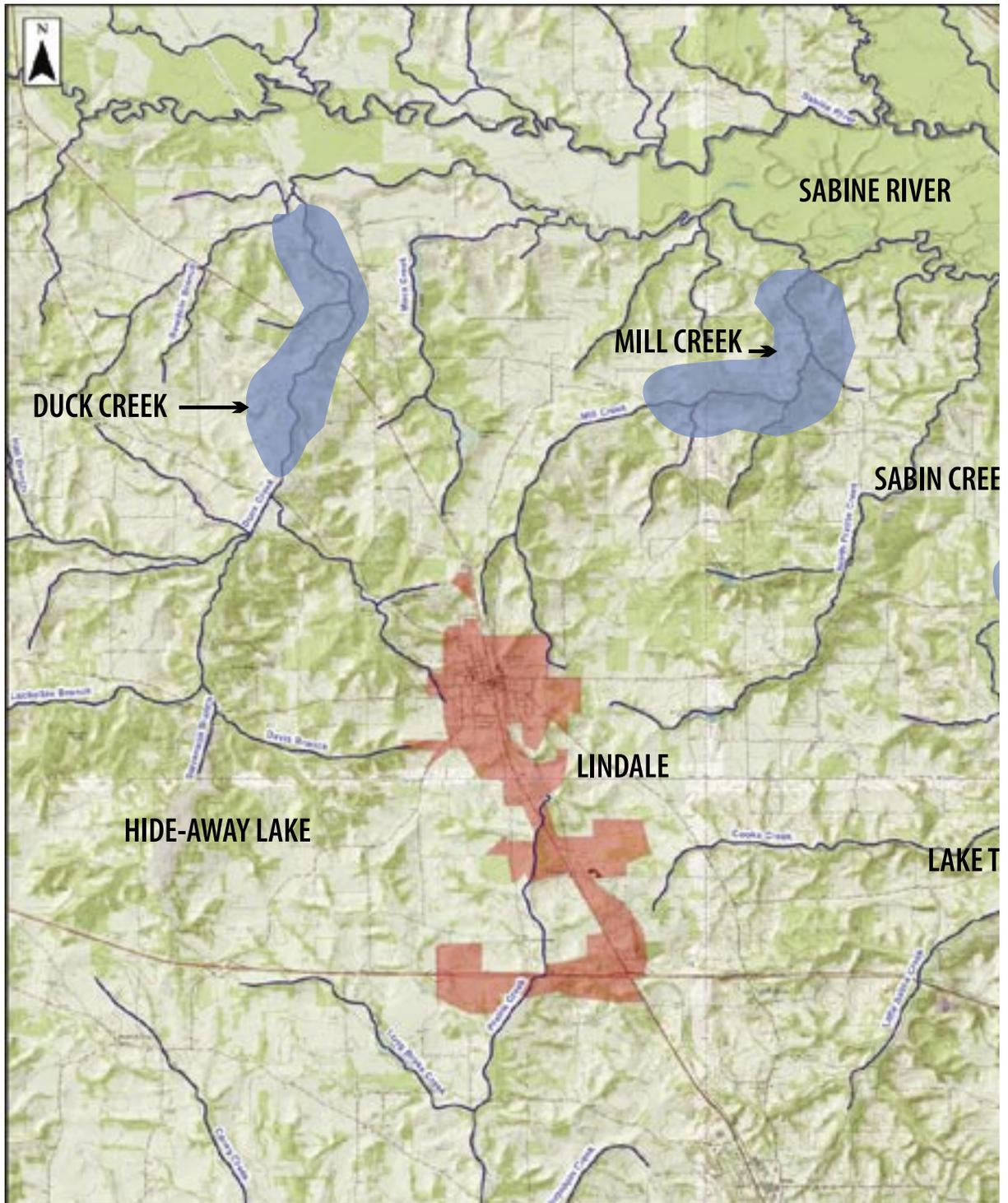
*Figure 6-5* identifies the general locations of the above mentioned creek systems. *Figure 6-6* identifies previous proposed reservoirs in the region. In all cases, detailed engineering studies would have to be conducted to determine if any of the respective watersheds are large enough geographically to generate sufficient water volumes to sustain a reservoir.

The approval of a new reservoir in any of the discussed locations would have to be approved by the Sabine River Authority and the Texas Natural Resource Conservation Commission. In addition, the facility would have to be a part of the State Water Plan. Approval processes can take as long as ten years.

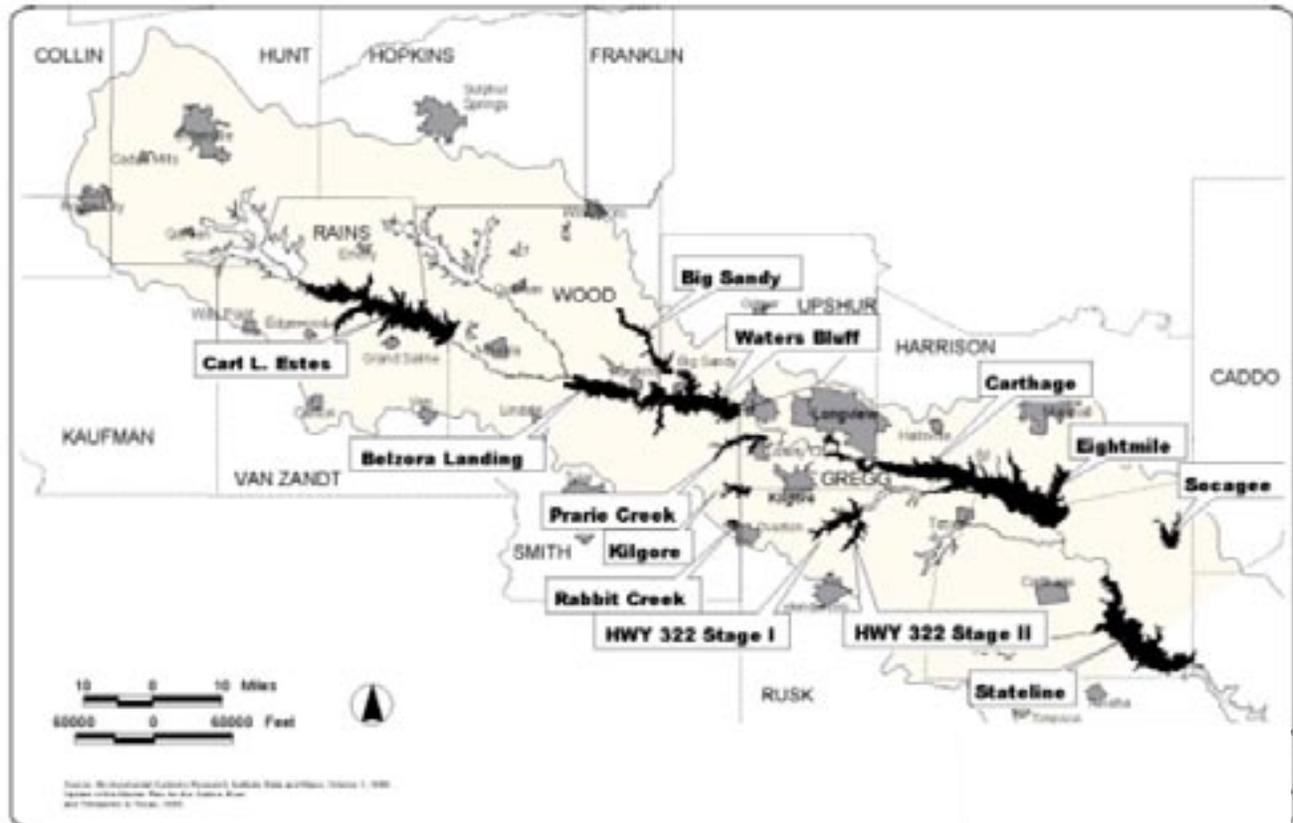
### The Existing Sewer System

The City of Lindale currently owns and operates a municipal waste water treatment system that serves selected areas of the community. The City requires that all newly developing areas within the incorporated boundary be connected to sanitary sewer service. *Figure 6-7* entitled Existing Sewer Service conceptually identifies the major elements of the existing sewer collection and treatment system along with current service areas.

The City currently owns two waste water treatment plants: The newer Northside Waste Water Treatment Plant (WWTP), constructed in 1998, is located in the northern sector of the community within the Mill Creek drainage basin; the older Southside WWTP is located at the southern end of the Prairie Creek drainage basin, just south of I-20. All effluent collected by the sewer network is currently treated at the Northside plant. The City has elected to suspend treatment at the Southside plant in an effort to control costs associated with operating



Regional Reservoir Options Figure 6-5



*Previously Proposed Regional Reservoir Figure 6-6*

and maintaining that facility. At his time effluent is collected at the Southside plant and pumped to the Northside plant for treatment via a series of pump stations and pressure lines. Although the Southside plant is currently dormant, the City has preserved its operating permit for that facility in the event that reactivation is required in the future.

The Northside WWTP is currently permitted by the TECQ to process up to 1.3 million gallons of effluent per day (mgd). The facility has a peak flow design capacity of 3.09million gpd. The Southside facility maintains a permit from the TECQ to process up to 72,000 gpd. That facility has a peak design capacity of 144,000 gpd.

Sewer collection networks are typically designed so as to rely

on gravity to transport effluent from the originating source to the point of treatment. Simply put: water runs down hill. In most real world situations, development patterns do not adhere totally to natural topographic conditions and sewer systems therefore must occasionally rely on mechanic devices to transfer effluent from one gravity system to the next. This transfer is performed by pump and lift stations. Lindale's existing sewer collection network relies on a number of these transfer devices, including a major pump facility at the Southside plant.

The basic design of an efficient sewer collection network, therefore, must take into account the topographic conditions of the natural landform. In the case of Lindale, the community is basically divided into two primary watersheds draining to



the north and south. Not by coincidence, the break-lines separating these two major drainage systems generally intersect in the original downtown area. The City's founders chose to start the town on the high ground. The community today is further defined by a number of secondary sub-drainage basins as identified by *Figure 6-1*. The dominate sub-basin in the southern half of the community is drained by Prairie Creek. Mill Creek drains the primary sub-basin to the north.

As previously noted, those areas of the community currently served by the City's sewer network are depicted on the Existing Sewer System map. Not surprisingly, the largest area currently served is the downtown commercial core and its surrounding neighborhoods. Sewer service has also been extended south of the downtown core in response to continued growth and development of that area.

The second largest sewer service area is located in the southerly sector of the community in and around the Southside WWTP. Located within the centralized Prairie Creek drainage basin, this sewer network serves commercial establishments concentrated around the US 69 / I-20 interchange, northward along the US 69 corridor, and the Target distribution center. As noted earlier, effluent collected at the dormant Southside WWTP is currently pumped to the Northside WWTP for processing.

Smaller isolated service areas also exist both to the west and east of the US 69 corridor. In both cases, these systems were constructed to serve new residential subdivisions. Both systems rely on lift stations to transfer collected effluent to larger gravity trunk systems.

### Sewer Planning Goals and Objectives

The Sewer Master Plan establishes the following goals and objectives:

**Goal:** Plan and provide for a community-wide sewer collection and treatment system that meets the both the existing and future long-term needs of the entire community.

**Objective:** Continue to require that all new development within the community be connected to an operational sanitary sewer system

**Objective:** Ensure that sewer service is provided coincident with community growth and new development initiatives.

**Goal:** Guide future development patterns in a manner that allows for the installation and operation of sanitary sewer service in a cost effective and efficient manner.

**Objective:** Use the provision of sanitary sewer service as a land planning tool to guide the location and timing of new development; prioritize major new investments to those areas of the community targeted for new growth by the Comprehensive Plan

**Objective:** design sewer main extensions, major pump stations and minor lift stations so as to provide the maximum service area coverage for the least amount of cost

**Objective:** Perform a cost-benefit analysis prior to introducing major sewer services to a new drainage sub-basin

### Sewer Master Plan

It is recommended that the City of Lindale continue to require that all new development be served by a public sewer system. In addition to protecting the long-term health, safety and welfare of the community a large, sewer planning serves as a valuable tool to guide the location, timing and intensity of future development.

Permitting for waste water collection and processing is governed by the Texas Commission of Environmental Quality (TCEC). State law currently requires that waste water treatment plant operators start planning for future facility expansion when demands on the system reach 75% of peak design capacity.

For comprehensive planning purposes, future demands on sewage collection and treatment have been estimated for the 25,000 population planning target and for a total build-out scenario (*see Table 6-2*) Demand estimates (i.e. anticipated flows) have been generated for each drainage sub-basin within the multi-jurisdiction planning area by applying daily average and peak flow rates to the area of each discrete land use category.



*Existing Sewer System Figure 6-7*





Table 6-4 identifies the community’s estimated average and peak sewer flow demands by population benchmarks up to 25,000 and for a total build-out scenario. These estimates indicate that at a population benchmark of 25,000 residents, the average daily sewer demand will be 4.5 mgd, with a daily peak demand of 5.8 mgd. Under the build-out scenario, average daily demand would increase significantly to 17.9 mgd, with a daily peak demand of 23.0 mgd. The existing North WWTP currently has a peak design capacity of 3.9 mgd. Therefore, additional treatment capacity will need to be added to the system before the community reaches that population level. The City should program an expansion of the system-wide treatment capacity when population reaches 10,000 to 15,000 persons. The population forecasts in this Plan would indicate that the City might reach a population level of 10,000 to 15,000 persons in the latter years of the twenty year (2025) planning horizon.

convey effluent from an upstream originating source to a downstream treatment facility. Variations of landform typically require that flows from one gravity collection system be lifted or pumped by mechanical devices either to an adjacent gravity system or directly to a treatment facility. The major pumping station operating next to the dormant South WWTP is a perfect example of this principle. The City currently collects effluent from development in the southern portions of the community and pumps it to the North WWTP. If the City continues to rely solely on the North WWTP to treat all of

the community’s waste water in the future, then the waste water collection network must continue to rely on a series of lift stations and pumps to transport material to that plant.

Table 6. 4 Estimated Sewer Demands

Population	Sewer Yield	Residential (MGD)	Non-Residential (MGD)	Total Yield (MGD)	North WWTP Peak Flow Capacity (MGD)	Combined Capacity (MGD)	North & South WWTP Peak Flow Capacity Surplus/ Deficiency (MGD)
5,000	Average Yield	0.459	0.454	0.913	3.9	4.044	3.131
5,000	Peak Yield	0.684	0.454	1.138	3.9	4.044	2.906
10,000	Average Yield	0.918	0.907	1.825	3.9	4.044	2.219
10,000	Peak Yield	1.368	0.907	2.275	3.9	4.044	1.769
15,000	Average Yield	1.377	1.361	2.738	3.9	4.044	1.306
15,000	Peak Yield	2.052	1.361	3.413	3.9	4.044	0.631
20,000	Average Yield	1.836	1.814	3.65	3.9	4.044	0.394
20,000	Peak Yield	2.736	1.814	4.55	3.9	4.044	-0.506
25,000	Average Yield(1)	2.296	2.268	4.564	3.9	4.044	-0.52
25,000	Peak Yield(1)	3.418	2.268	5.686	3.9	4.044	-1.642
Built Out	Average Yield(2)	10.511	7.445	17.956	3.9	4.044	-13.912
Built Out	Peak Yield(2)	15.63	7.445	23.075	3.9	4.044	-19.031

(1) Assumes approximately 9,766 residential customers

(2) Assumes a total population of approximately 114,491 people and 44,723 residential customers

In addition to estimating system-wide treatment needs, long range demands on the system’s collection network must also be addressed at the drainage sub-basin level. The most efficient wastewater collection system relies on gravity to collect and

**The Sewer Master Plan is illustrated on Figure 6-8**

As cited earlier in the water master plan, the greatest demands for new growth and development are likely to occur in the southern sub-basins of the community based on excellent



access opportunities, existing sewer collection infrastructure (currently within the Prairie and Cross Creek sub-basins) and the general availability of large tracts of land available and suitable for development. Again, as with the water plan, it is anticipated that the Prairie Creek, Harvey Road, Long Brake and Cooks Creek sub-basins will experience the greatest development activities. These areas are identified on *Figure 6-8*, the Sewer Master Plan map. *Table 6-4* exhibits the Estimated Sewer Demands.

Continued growth in the southern sector of the planning area will require significant investments in expanding and upgrading the existing collection system within the Prairie Creek and Cooks Creek sub-basins, and for introducing new systems in the Harvey Road and Long Brake basins. It is impossible to accurately predict either the timing or scope of new development that will actually occur within a designated sub-basin over any given period of time. The marketplace is neither consistent nor predictable. Therefore, as demand for expanded collection facilities arise in any of the sub-basins, detailed system modeling and cost benefit analyses will be required to identify the most efficient and cost effective means of meeting that demand. The build-out scenario flow estimates provided by this comprehensive plan are of value to the utility engineers in their periodic modeling of system improvements to determine appropriate design capacities.

### Long Range Strategic Considerations

The City of Lindale will have to make many strategic decisions related to providing long term waste water treatment to the community, especially looking beyond the twenty year planning horizon of this comprehensive plan. Some of the strategic considerations to be addressed are noted below.

- **Single versus Multiple Waste Water Treatment Facilities**  
From a long term maintenance and operation perspective it is typically more cost-effective to operate a single consolidated waster treatment facility than multiple facilities. The City has recognized this fact by ceasing treatment operations at the South WWTP, relying instead on construction of a pumping facility to convey effluent back to the North plant. However, it is also typically more cost effective to utilize gravity based sewer collection systems than rely on

a series of lift and pump stations to move material to a treatment facility.

The majority of future growth activity will occur in the southern sectors of the community, at elevations lower than the existing treatment plant situated in the northern sector. As the community reaches population levels that require increases in overall treatment capacities, careful cost-benefit and environmental analyses should be prepared to assess the viability of further expanding the North WTP versus either re-activating and expanding the South WWTP, or constructing a new treatment facility. If a new plant were to be constructed in the southern sector, it should be designed to serve multiple sub-basins on a gravity-fed basis. Reliance on major pump facilities should be minimized to the greatest extent possible. Long-term use of the existing North WWTP also should be analyzed carefully to determine if it would be more cost effective to continue operating that plant as a treatment facility, or convert it to a collection and pumping station to serve a new southern plant. It may be feasible to utilize the existing 12" force main by converting it to a slightly pressurized gravity main.

- **Joint Participation**  
There exist economies of scale in the construction and operation of a waste water treatment facility. As a long term service option, the City should consider participating with the City of Tyler in the construction of a new plant that could service portions of both communities. The location of this plant could be along Prairie Creek just below the convergence of the Prairie Creek, Harvey Road and Long Brake drainage systems, or farther downstream within the Tyler ETJ.
- **Regionalism**  
Due to ever increasing environmental standards and escalating construction, operational and maintenance costs, more and more small and mid-size communities are electing to address long term waste water treatment on a regional basis. Flows are collected from each community and transported via large gravity truck lines or force mains to a regional treatment facility. The centralized treatment facility is usually owned and operated by a regional operating authority with a board of directors that includes representation from participating communities.

*Sewer Master Plan Figure 6-8*





### Impervious Surface Area Estimates

The basic processes of urban growth and development results in a pronounced change in the natural landform. A consequence of the land development process is the advent of “hard” surfaces that either inhibit or totally preclude the ability of the ground to absorb rainwater. Such hard surfaces are referred to as “impervious surfaces.” The accumulative effect of ever increasing amounts of impervious surfaces within a community can have adverse impacts on downstream properties due to localized flooding, and on occasion may even threaten the physical safety and well being of the general populace.

The degree to which new development increases the amount of impervious surface area within the City is a function both of the type and intensity of development being constructed. For example, a residential development generally has more resulting “green area” than a commercial development, thus creating less impervious surface area and generating lower storm water runoff volumes. In a similar fashion, a residential subdivision developed at a density of one lot to the acre would create less impervious surface area per acre than would a subdivision developed at two or three lots to the acre.

As the community continues to grow and develop, it will be necessary to continually monitor the ability of the community’s natural and man-made drainage systems to handle the ever-increasing amounts of storm water runoff generated by that new development. *Table 6.5* identifies estimates of the total amount of impervious surface areas for each of the major and minor drainage basins within the community based on a “build-out” scenario. For each identified sub-drainage basin, the respective geographic area of each assigned land use policy category is quantified, an average impervious surface ratio is applied to that specific land use category, and the resulting aggregate amount of anticipated impervious area for the drainage basin is calculated.

### Fire Suppression

The provision of fire protection is an essential community safety service that requires a major commitment of capital improvement funds on the part of the City. Careful consideration must be given to the placement of fire halls throughout the community in order to achieve the highest level of fire suppression service for the associated capital costs.

Lindale today is part of a longer Emergency Service District (ESD) that provides fire suppression for an area of approximately 105 square miles. This district is currently funded at the rate of \$0.05 per every \$100 valuation with an option to increase that rate to \$0.10 per every \$100 upon approval by the Fire Board. The district currently operates three fire halls, one being located within the City of Lindale in the downtown area.

Communities are rated according to their fire suppression capabilities by the Insurance Services Office (ISO). The community’s fire rating, in turn, has a direct bearing on insurance premium rates paid by the local residents and business owners. The ISO rating system addresses the type of district being served (“high value” vs. “residential”), the required fire (water) flow, and response distances. The standard response distance for a “high value” district is 1½ miles for engine and pumper companies. Two miles is an acceptable response distance for residential districts.

The National Fire Protection Association (NFPA) publishes statistics regarding the service levels of fire departments around the country. Municipalities of comparable size and character to Lindale generally staff fire halls at a rate of 1.2 firefighters per 1000 population. Those same comparable communities average .091 stations per 1000 persons, which equates to 2.28 stations for 25,000 people, the planning benchmark population.

In planning for new fire halls, the goal is to minimize response times to the maximum number of residences and businesses with the fewest number of halls. The following planning criteria is recommended for locating future fire halls:

- 80% of the coverage area should be within a 1½ mile service radius of the fire hall;
- minimize overlapping response areas
- locate close to high density residential, commercial, industrial areas
- locate near, but not directly on a major arterial streets; avoid congested intersections and at-grade rail crossings; provide signalized access to the arterial street
- allocate approximately two acres per fire hall



Table 6.5 Estimated Impervious Surfaces by Drainage Sub-Basin

Basin	Land Use Policy	Area (acres)	Average Percent Impervious Surface	Estimated Impervious Surface Area (Acres)	Basin Percentage of Impervious Area
<b>American Legion Lake</b>					
ALL1	F/A	431	N/A	N/A	
ALL2	RLM	390	0.30	117.00	
<b>SUBTOTAL</b>		<b>821</b>	<b>0.30</b>	<b>117.00</b>	<b>14.25%</b>
<b>Cooks Creek</b>					
CC1	RLM	828	0.30	248.4	
CC2	RH	243	0.65	157.95	
CC3	I-20	490	0.85	416.50	
CC4	US 69	30	0.85	25.50	
<b>SUBTOTAL</b>		<b>1,591</b>	<b>2.65</b>	<b>848.35</b>	<b>53.32%</b>
<b>Davis Branch</b>					
DB1	HWY 49	752	0.20	150.40	
DB2	RLM	156	0.30	46.80	
DB3	S	17	0.25	4.25	
DB4	RH	26	0.65	16.90	
<b>SUBTOTAL</b>		<b>950</b>	<b>1.40</b>	<b>218.35</b>	<b>22.98%</b>
<b>Harvey Road</b>					
HR1	HWY 49	74	0.20	14.80	
HR2	RH	712	0.65	462.59	
HR3	RLM	6	0.30	1.71	
HR4	I/P.D.	140	0.65	91.29	
HR5	CB	131	0.05	6.55	
HR6	I-20	72	0.85	61.34	
HR7	I-20	125	0.85	106.46	
HR8	T/D	102	0.75	76.86	
HR9	T/D	214	0.75	160.84	
HR10	MU	20	0.85	16.94	
<b>SUBTOTAL</b>		<b>1,597</b>	<b>5.90</b>	<b>999.36</b>	<b>62.58%</b>



Table 6.5 Estimated Impervious Surfaces by Drainage Sub-Basin

Basin	Land Use Policy	Area (acres)	Average Percent Impervious Surface	Estimated Impervious Surface Area (Acres)	Basin Percentage of Impervious Area
<b>Hide-A-Way</b>					
HAW1	MU	402	0.85	341.98	
SUBTOTAL		402	0.85	341.98	<b>85.07%</b>
<b>Lindale Lake</b>					
LL1	RLM	118	0.30	35.30	
LL2	F/A	145	N/A	N/A	
SUBTOTAL		263	0.30	35.30	<b>13.42%</b>
<b>Long Brake</b>					
LB1	RH	21	0.65	13.57	
LB2	MU	723	0.85	614.60	
LB3	I/P.D.	137	0.65	88.82	
LB4	T/D	579	0.75	434.12	
SUBTOTAL		1,459	2.90	1,151.10	<b>78.90%</b>
<b>Mill Creek</b>					
MC1	RLM	2	0.30	0.57	
MC2	F/A	1,221	N/A	N/A	
MC3	RLM	993	0.30	298.05	
MC5	DMU	104	0.95	99.16	
MC6/PC6	S	34	0.25	8.55	
SUBTOTAL		2,355	1.80	406.33	<b>17.25%</b>
<b>North J. Hogg Interchange</b>					
NJH1	I-20	123	0.85	104.86	
NJH2	MU	31	0.85	26.61	
SUBTOTAL		155	1.70	131.47	<b>84.80%</b>



Table 6.5 Estimated Impervious Surfaces by Drainage Sub-Basin

Basin	Land Use Policy	Area (acres)	Average Percent Impervious Surface	Estimated Impervious Surface Area (Acres)	Basin Percentage of Impervious Area
<b>North Prairie Creek</b>					
NPC1	RLM	1,426	0.30	427.86	
SUBTOTAL		1,426	0.30	427.86	<b>30.00%</b>
<b>Prairie Creek</b>					
PC1	DMU	161	0.95	153.24	
PC2	RLM	914	0.30	274.13	
PC3	US 69	232	0.85	196.80	
PC4	RLM	715	0.30	214.64	
PC5	S	30	0.25	7.59	
PC7	CB	276	0.05	13.81	
PC8	RH	332	0.65	215.87	
PC9	RLM	8	0.30	2.28	
PC10	RH	70	0.65	45.64	
PC11	US 69	94	0.85	79.69	
PC12	I-20	268	0.85	227.45	
PC13	I-20	184	0.85	156.48	
PC14	Gateway	241	0.80	192.82	
PC15	I-20	171	0.85	145.18	
PC16	T/D	106	0.75	79.71	
PC17	T/D	544	0.75	407.79	
PC18	MU	118	0.85	100.01	
SUBTOTAL		4,463	10.85	2,513.13	<b>56.30%</b>
<b>South J. Hogg Interchange</b>					
SJH1	MU	152	0.85	129.05	
SUBTOTAL		152	0.85	129.05	<b>84.90%</b>
<b>Stevenson Branch</b>					
SB1	Hwy 49	823	0.20	164.54	
SB2	RLM	1,144	0.30	343.31	
SB3	S	21	0.25	5.22	
SB4	DMU	42	0.95	39.66	
SUBTOTAL		2,030	1.70	552.73	<b>27.23%</b>



It is anticipated that an additional fire hall will be required at some point in time within the twenty year planning period to maintain acceptable levels of response for newly developing areas in the southern sector of the community. The recommended location of this additional fire hall (with its respective 1½ mile service radii) is indicated on *Figure 6-9, Community Services*.

According to industry standards, the current average cost of constructing, equipping and staffing a new fire hall is approximately \$1.5 million. It is recommended, therefore, that the Emergency Service District budget this amount for the construction of an additional fire hall within the twenty-year planning period. The timing of additional fire hall construction will be determined primarily by the rate of commercial, industrial and residential growth experienced by the associated response area.

### Police

Like fire suppression, the provision of police protection is a basic public safety service provided by a municipality. Industry standards as set by the International Association of Police Chiefs recommend an average of 2.2 police officers per 1000 people.

In planning for the need of additional police services, it is assumed that the City will continue to provide service from a central precinct. Therefore, the costs associated with expanding the department will be primarily related to additional manpower and equipment (e.g. patrol cars). *Table 6-6* identifies the recommended staffing required to maintain a ratio of 2.2 officers per 1000 population throughout the planning period. In 2004 dollars, the initial cost to employ and equip each new police officer is approximately \$125,000.

**Table 6.6 Future Police Demands**

City Population	5,000	10,000	15,000	20,000	25,000
Officers Required at 2.2/1000	11	22	33	44	55
Estimated Cost at \$125,000/ Officer	\$1,375,000	\$2,750,000	\$4,125,000	\$5,500,000	\$6,875,000

### Library

Planning for community library facilities is generally based on one of two demand factors: volumes (e.g. books and periodicals) per person; or facility size as a function of square feet per person. Current industry standards recommend the provision of two volumes per person, and/or the allocation of .5 square feet of facility space per person.

The current library facility has approximately 10,000 square feet of floor area, equating to 2.67 square feet per person based solely on the City’s current population base. With approximately 27,500 volumes, the library contains 7.33 volumes per person.

*Table 6.7* identifies future demands on library services based on service population. As the service population grows, the County should monitor the need for facility expansion and number of volumes to keep pace with demand.

**Table 6.7 Future Library Demands**

City Population	5,000	10,000	15,000	20,000	25,000
Volumes Required at 2/ Person	10,000	20,000	30,000	40,000	50,000
Building Area Required at .5 sqft/ person	2,500	5,000	7,500	10,000	12,500





*Community Services Figure 6-9*

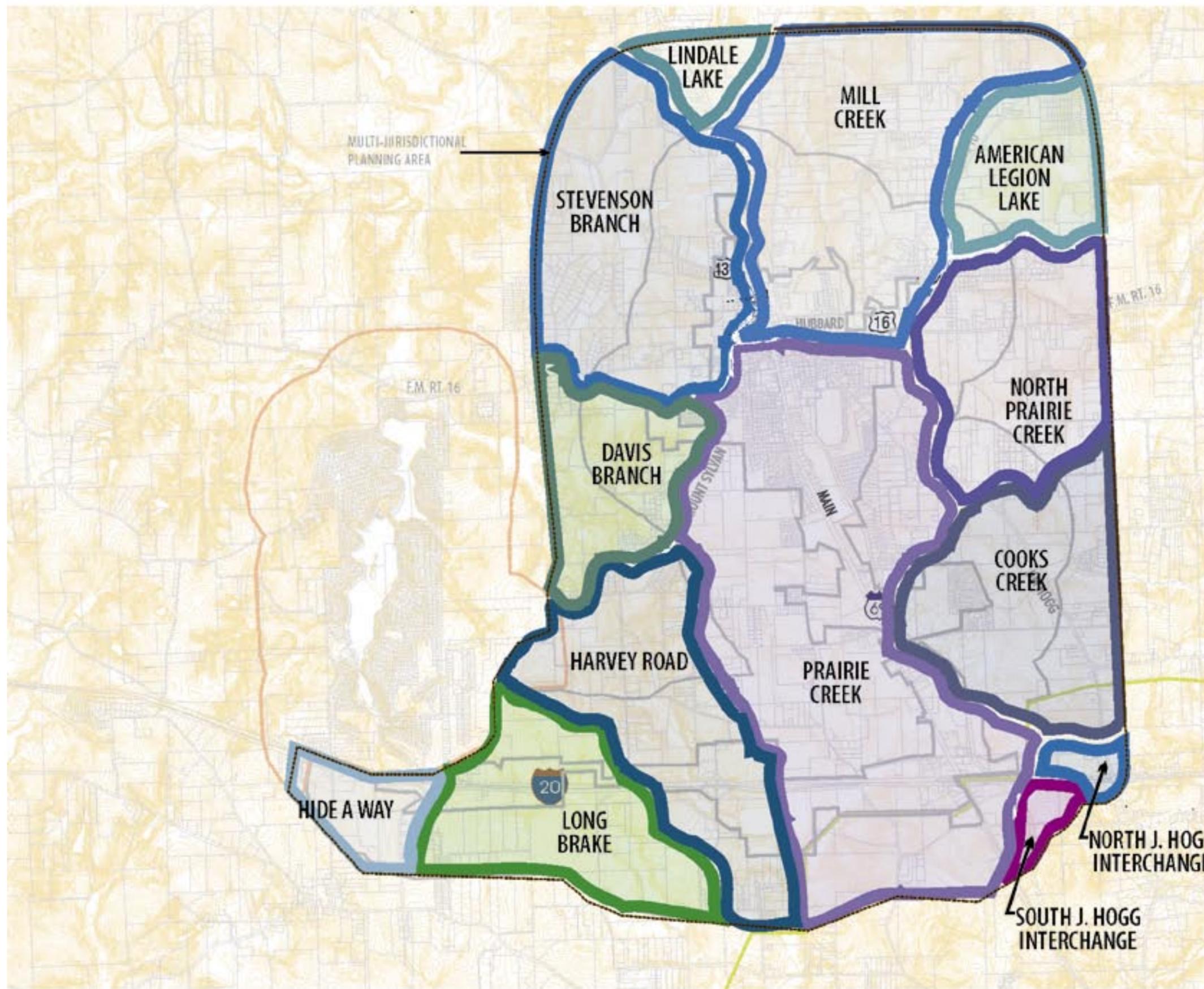




LINDALE SECOND CENTURY  
COMPREHENSIVE PLAN

DRAINAGE SUB-BASINS

Figure 6-1



Legend

- Parcel Lines
- Lindale City Limits
- Lindale ETJ Boundary
- Topography
- ETJ - Tyler
- ETJ - Hawt

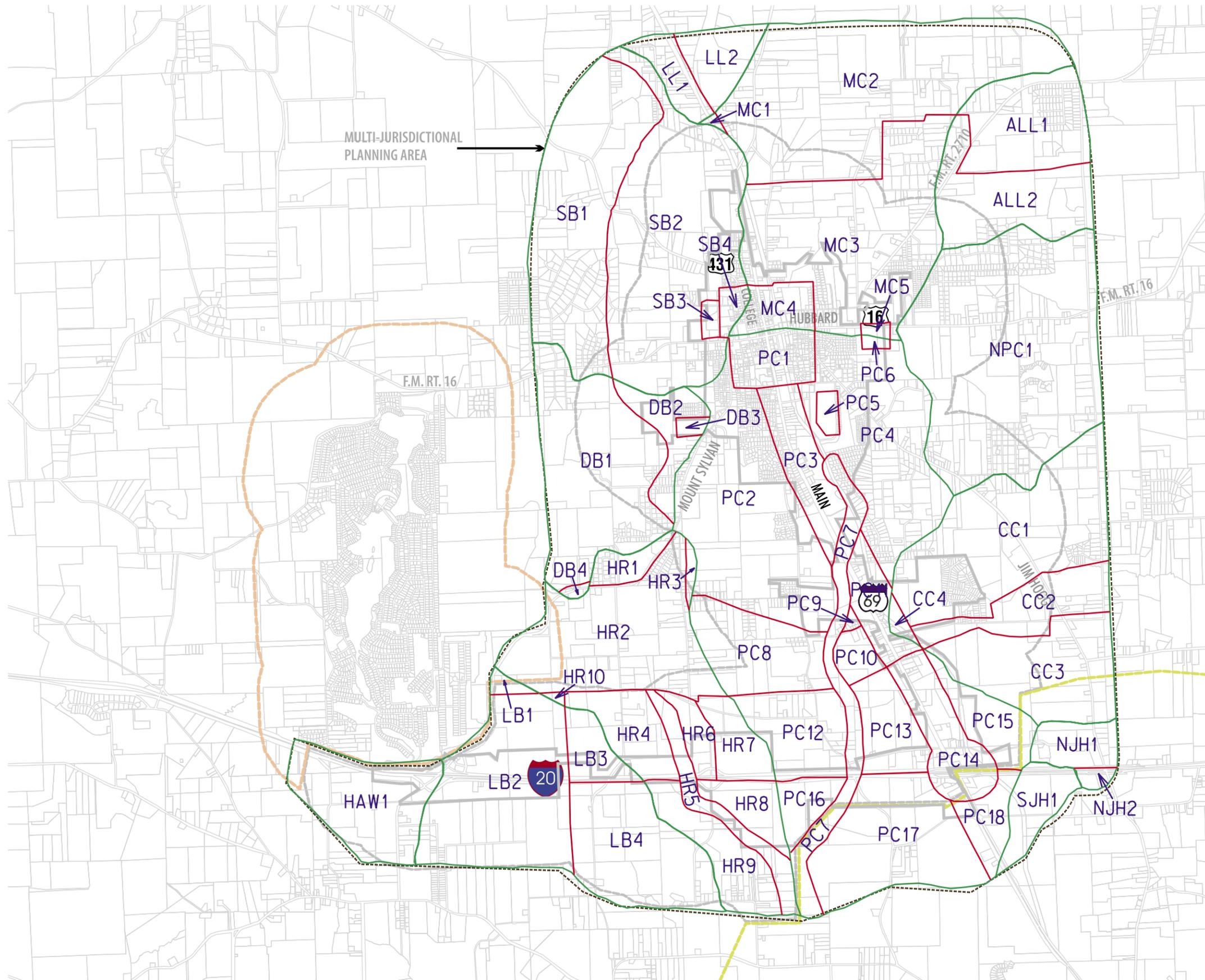




# LINDALE SECOND CENTURY COMPREHENSIVE PLAN

## UTILITY DEMAND SUB-DISTRICTS

Figure 6-2



MULTI-JURISDICTIONAL PLANNING AREA



**Legend**

- Parcel Lines
- Lindale City Limits
- Lindale ETJ Boundary
- ETJ - Tyler
- ETJ - Hawl



Table 6-2. Water and Sewer Demand by Drainage Sub-basins

Basin	Land Use Policy	Gross Area (acres)	Total Net Area (acres)	Land Use Allocation	Area by Use Type	Yield Factor	Yield (DU)	Yield (GFA)	Non-Res. Factor (gallons per sq ft per day)	Build-Out			25,000 Population			
										Built Out Average Water Demand GPD @ 235 gpd Res	*Built Out Peak Water Demand GPD @ 635 gpd Res	*Built Out Peak Sewer Demand GPD @ 635 gpd Res	25 k Pop. @ 235 gpd & 25% Nres. Average Water/Sewer GPD	25 k Pop. @ 635 gpd & 25% Nres. Peak Water Demand GPD	25 K Pop. @ 350 gpd & 25 % Nres Peak Sewer Yield GPD	
American Legion Lake																
ALL1	F/A	431	345			0.20 DU/acre	69			16,198	43,769	24,125	3,538	9,559	5,269	
ALL2	RLM	390	312			4 DU/acre	1,248			293,280	792,480	436,800	64,052	173,078	95,397	
SUBTOTAL		821	657				1,317			309,478	836,249	460,925	67,590	182,637	100,666	
Cooks Creek																
CC1	RLM	828	663			4 DU/acre	2,651			622,942	1,683,268	927,786	136,050	367,626	202,628	
CC2	RH	243	194			12 DU/acre	2,332			548,028	816,211	816,211	119,689	178,261	178,261	
CC3	I-20	490	392													
				75% retail	294	0.20 FAR		2,561,328	0.1	256,133	256,133	256,133	64,033	64,033	64,033	
				25% office	98	0.40 FAR		1,706,332	0.2	341,266	341,266	341,266	85,317	85,317	85,317	
CC4	US 69	30	24													
				60% retail	15	0.20 FAR		126,958	0.16	20,313	20,313	20,313	5,078	5,078	5,078	
				20% office	5	0.40 FAR		84,639	0.2	16,928	16,928	16,928	4,232	4,232	4,232	
				20% MF	5	20 DU/acre	97			22,831	34,003	34,003	4,986	7,426	7,426	
SUBTOTAL		1,591	1,273				5,080	4,479,257		1,828,440	3,168,123	2,412,640	419,386	711,973	546,975	
Davis Branch																
DB1	HWY 49	752	601													
				95% residential	571	2 DU/acre	1,142			268,443	725,367	399,809	58,628	158,420	87,318	
				5% retail	30	0.20 FAR		261,890	0.1	26,189	26,189	26,189	6,547	6,547	6,547	
DB2	RLM	156	124			4 DU/acre	498			117,026	316,220	174,294	25,559	69,062	38,066	
DB3	S	17	14			students	1,500			45,290	45,290	45,290	45,290	45,290	45,290	
DB4	RH	26	20			12 DU/acre	246			57,799	86,083	86,083	12,623	18,801	18,801	
SUBTOTAL		950	760				1,886	261,890		514,747	1,199,149	731,665	148,647	298,120	196,022	
Harvey Road																
HR1	HWY 49	74	59													
				95% residential	56	2 DU/acre	112			26,436	71,434	39,373	5,774	15,601	8,599	
				5% retail	3	0.20 FAR		25,791	0.1	2,579	2,579	2,579	645	645	645	
HR2	RH	712	569			12 DU/acre	6,832			1,605,528	2,391,211	2,391,211	350,647	522,241	522,241	
HR3	RLM	6	4.6			4 DU/acre	18			4,279	11,562	6,373	935	2,525	1,392	
HR4	I/P.D.	140	112													
				80% office	90	0.40 FAR		1,566,097	0.2	313,219	313,219	313,219	78,305	78,305	78,305	
				20% retail	22	0.20 FAR		195,762	0.1	19,576	19,576	19,576	4,894	4,894	4,894	
HR5	CB	131	105	0.00			0	0								
HR6	I-20	72	58													
				75% retail	43	0.20 FAR		377,195	0.1	37,719	37,719	37,719	9,430	9,430	9,430	
				25% office	14	0.40 FAR		251,463	0.2	50,293	50,293	50,293	12,573	12,573	12,573	
HR7	I-20	125	100													
				75% retail	75	0.20 FAR		654,707	0.1	65,471	65,471	65,471	16,368	16,368	16,368	
				25% office	25	0.40 FAR		436,471	0.2	87,294	87,294	87,294	21,824	21,824	21,824	
HR8	T/D	102	82	100% industrial	82	0.15 FAR		535,683	0.3	160,705	160,705	160,705	40,176	40,176	40,176	
				Target Dist.						350,000	350,000	350,000	350,000	350,000	350,000	
HR9	T/D	214	172	100% industrial	172	0.15 FAR		1,120,973	0.3	336,292	336,292	336,292	84,073	84,073	84,073	
HR10	MU	20	16	50% retail	8	0.20 FAR		69,452	0.1	6,945	6,945	6,945	1,736	1,736	1,736	
				25% office	4	0.40 FAR		69,452	0.2	13,890	13,890	13,890	3,473	3,473	3,473	
				25% MF	4	20 DU/acre	80			18,734	27,902	27,902	4,092	6,094	6,094	
SUBTOTAL		1,597	1,278				7,042	5,303,047		3,098,961	3,946,094	3,908,844	984,943	1,169,957	1,161,821	

Legend:

CB Conservation Buffer  
DMU Downtown Mixed Use  
F/A Farmstead and Agricultural

Gateway I-20 and Highway 69 Gateway  
Hwy 49 Loop Road 49 Corridor  
US 69 US 69 Corridor

I / P.D. Institutional and Planned Development  
I-20 I-20 North Parallel Corridor  
MU Mixed Use Center

RH High-Density Residential  
RLM Low-Medium Density Residential  
S School

T / D Transportation and Distribution Center

Table 6-2. Water and Sewer Demand by Drainage Sub-basins

Basin	Land Use Policy	Gross Area (acres)	Total Net Area (acres)	Land Use Allocation	Area by Use Type	Yield Factor	Yield (DU)	Yield (GFA)	Non-Res. Factor (gallons per sq ft per day)	Build-Out			25,000 Population		
										Built Out Average Water Demand GPD @ 235 gpd Res	*Built Out Peak Water Demand GPD @ 635 gpd Res	*Built Out Peak Sewer Demand GPD @ 635 gpd Res	25 k Pop. @ 235 gpd & 25% Nres. Average Water/Sewer GPD	25 k Pop. @ 635 gpd & 25% Nres. Peak Water Demand GPD	25 K Pop. @ 350 gpd & 25 % Nres Peak Sewer Yield GPD
Hide-A-Way															
HAW1	MU	402	322												
				50% retail	161	0.20 FAR		1,402,040	0.1	140,204	140,204	140,204	35,051	35,051	35,051
				25% office	80	0.40 FAR		1,402,040	0.2	280,408	280,408	280,408	70,102	70,102	70,102
				25% MF	80	20 DU/acre	1,609			378,190	563,262	563,262	82,597	123,016	123,016
SUBTOTAL		402	322				1,609	2,804,079		798,802	983,874	983,874	187,750	228,169	228,169
Lindale Lake															
LL1	RLM	118	94			4 DU/acre	377			88,480	239,085	131,779	19,324	52,216	28,781
LL2	F/A	145	116			0.20 DU/acre	23			5,459	14,750	8,130	1,192	3,221	1,776
SUBTOTAL		263	210				400			93,939	253,835	139,909	20,516	55,438	30,556
Long Brake															
LB1	RH	21	17			12 DU/acre	200			47,105	70,157	70,157	10,288	15,322	15,322
LB2	MU	723	578												
				50% retail	289	0.20 FAR		2,519,719	0.1	251,972	251,972	251,972	62,993	62,993	62,993
				25% office	145	0.40 FAR		2,519,719	0.2	503,944	503,944	503,944	125,986	125,986	125,986
				25% MF	145	20 DU/acre	2,892			679,676	1,012,284	1,012,284	148,441	221,083	221,083
LB3	I/P.D.	137	109												
				80% office	87	0.40 FAR		1,523,722	0.2	304,744	304,744	304,744	76,186	76,186	76,186
				20% retail	22	0.20 FAR		190,465	0.1	19,047	19,047	19,047	4,762	4,762	4,762
LB4	T/D	579	463	100 % industrial	463	0.15 FAR		3,025,608	0.3	907,682	907,682	907,682	226,921	226,921	226,921
SUBTOTAL		1,459	1,168				3,093	9,779,234		2,714,171	3,069,830	3,069,830	655,576	733,252	733,252
Mill Creek															
MC1	RLM	2	1.5			4 DU/acre	6			1,429	3,861	2,128	312	843	465
MC2	F/A	1,221	977			0.20 DU/acre	195			45,825	123,825	68,250	10,008	27,043	14,906
MC3	RLM	993	795			4 DU/acre	3,179			747,104	2,018,772	1,112,709	163,168	440,900	243,016
MC4	DMU	104	84												
				50% retail	42	0.20 FAR		363,743	0.1	36,374	36,374	36,374	9,094	9,094	9,094
				40% office	33	0.40 FAR		581,989	0.2	116,398	116,398	116,398	29,099	29,099	29,099
				10% residential	8	4 DU/acre	33			7,849	21,210	11,691	1,714	4,632	2,553
MC5/PC6	S	34	27			students	1,000			48,520	48,520	48,520	48,520	48,520	48,520
SUBTOTAL		2,355	1,884				3,414	945,733		1,003,500	2,368,960	1,396,070	261,915	560,132	347,652
North J. Hogg Interchange															
NJH1	I-20	123	99												
				75% retail	74	0.20 FAR		644,827	0.1	64,483	64,483	64,483	16,121	16,121	16,121
				25% office	25	0.40 FAR		429,885	0.2	85,977	85,977	85,977	21,494	21,494	21,494
NJH2	MU	31	25												
				50% retail	13	0.20 FAR		109,109	0.1	10,911	10,911	10,911	2,728	2,728	2,728
				25% office	6	0.40 FAR		109,109	0.2	21,822	21,822	21,822	5,455	5,455	5,455
				25% MF	6	20 DU/acre	125			29,431	43,834	43,834	6,428	9,573	9,573
SUBTOTAL		155	124				125	1,292,930		212,624	227,026	227,026	52,226	55,371	55,371
North Prairie Creek															
NPC1	RLM	1,426	1,141			4 DU/acre	4,564			1,072,495	2,898,018	1,597,333	234,233	632,927	348,857
SUBTOTAL		1,426	1,141				4,564			1,072,495	2,898,018	1,597,333	234,233	632,927	348,857
Prairie Creek															
PC1	DMU	161	129												
				50% retail	65	0.20 FAR		562,133	0.1	56,213	56,213	56,213	14,053	14,053	14,053

Legend:

CB	Conservation Buffer	Gateway	I-20 and Highway 69 Gateway	I / P.D.	Institutional and Planned Development	RH	High-Density Residential	T / D	Transportation and Distribution Center
DMU	Downtown Mixed Use	Hwy 49	Loop Road 49 Corridor	I-20	I-20 North Parallel Corridor	RLM	Low-Medium Density Residential		
F/A	Farmstead and Agricultural	US 69	US 69 Corridor	MU	Mixed Use Center	S	School		

Table 6-2. Water and Sewer Demand by Drainage Sub-basins

Basin	Land Use Policy	Gross Area (acres)	Total Net Area (acres)	Land Use Allocation	Area by Use Type	Yield Factor	Yield (DU)	Yield (GFA)	Non-Res. Factor (gallons per sq ft per day)	Build-Out			25,000 Population		
										Built Out Average Water Demand GPD @ 235 gpd Res	*Built Out Peak Water Demand GPD @ 635 gpd Res	*Built Out Peak Sewer Demand GPD @ 635 gpd Res	25 k Pop. @ 235 gpd & 25% Nres. Average Water/Sewer GPD	25 k Pop. @ 635 gpd & 25% Nres. Peak Water Demand GPD	25 K Pop. @ 350 gpd & 25 % Nres Peak Sewer Yield GPD
PC1 (cont.)				40% office	52	0.40 FAR		899,413	0.2	179,883	179,883	179,883	44,971	44,971	44,971
				10% residential	13	4 DU/acre	52			12,220	33,020	18,200	2,669	7,212	3,975
PC2	RLM	914	731			4 DU/acre	2,924			687,163	1,856,801	1,023,434	150,076	405,525	223,518
PC3	US 69	232	185												
				60% retail	111	0.20 FAR		968,203	0.16	154,912	154,912	154,912	38,728	38,728	38,728
				20% office	37	0.40 FAR		645,469	0.2	129,094	129,094	129,094	32,273	32,273	32,273
				20% MF	37	20 DU/acre	741			174,111	259,314	259,314	38,026	56,634	56,634
PC4	RLM	715	572			4 DU/acre	2,289			538,026	1,453,815	801,315	117,505	317,513	175,007
PC5	S	30	24			students	1,000			48,520	48,520	48,520	48,520	48,520	48,520
PC7	CB	276	221	0.00			0	0							
PC8	RH	332	266							749,240	1,115,890	1,115,890	163,634	243,710	243,710
PC9	RLM	8	6			4 DU/acre	24			5,640	15,240	8,400	1,232	3,328	1,835
PC10	RH	70	56							158,416	235,939	235,939	34,598	51,529	51,529
PC11	US 69	94	75												
				60% retail	45	0.20 FAR		392,040	0.16	62,726	62,726	62,726	15,682	15,682	15,682
				20% office	15	0.40 FAR		261,360	0.2	52,272	52,272	52,272	13,068	13,068	13,068
				20% MF	15	20 DU/acre	300			70,500	105,000	105,000	15,397	22,932	22,932
PC12	I-20	268	214												
				75% retail	161	0.20 FAR		1,398,746	0.1	139,875	139,875	139,875	34,969	34,969	34,969
				25% office	54	0.40 FAR		932,498	0.2	186,500	186,500	186,500	46,625	46,625	46,625
PC13	I-20	184	147												
				75% retail	110	0.20 FAR		962,275	0.1	96,228	96,228	96,228	24,057	24,057	24,057
				25% office	37	0.40 FAR		641,517	0.2	128,303	128,303	128,303	32,076	32,076	32,076
PC14	Gateway	241	193												
				100% retail	193	0.20 FAR		1,681,416	0.38	638,938	638,938	638,938	159,735	159,735	159,735
PC15	I-20	171	137												
				75% retail	102	0.20 FAR		892,806	0.1	89,281	89,281	89,281	22,320	22,320	22,320
				25% office	34	0.40 FAR		595,204	0.2	119,041	119,041	119,041	29,760	29,760	29,760
PC16	T/D	106	85	100% industrial	85	0.15 FAR		13	0.3	4	4	4	1	1	1
PC17	T/D	544	435	100% industrial	435	0.15 FAR		65	0.3	20	20	20	5	5	5
PC18	MU	118	94												
				50% retail	47	0.20 FAR		410,022	0.1	41,002	41,002	41,002	10,251	10,251	10,251
				25% office	24	0.40 FAR		410,022	0.2	82,004	82,004	82,004	20,501	20,501	20,501
				25% MF	24	20 DU/acre	471			110,600	164,724	164,724	24,155	35,976	35,976
SUBTOTAL		4,463	3,571				10,663	11,653,200		4,710,731	7,444,557	5,937,030	1,134,886	1,731,953	1,402,710

Legend:

- |     |                            |         |                             |          |                                       |     |                                |       |                                        |
|-----|----------------------------|---------|-----------------------------|----------|---------------------------------------|-----|--------------------------------|-------|----------------------------------------|
| CB  | Conservation Buffer        | Gateway | I-20 and Highway 69 Gateway | I / P.D. | Institutional and Planned Development | RH  | High-Density Residential       | T / D | Transportation and Distribution Center |
| DMU | Downtown Mixed Use         | Hwy 49  | Loop Road 49 Corridor       | I-20     | I-20 North Parallel Corridor          | RLM | Low-Medium Density Residential |       |                                        |
| F/A | Farmstead and Agricultural | US 69   | US 69 Corridor              | MU       | Mixed Use Center                      | S   | School                         |       |                                        |

Table 6-2. Water and Sewer Demand by Drainage Sub-basins

Basin	Land Use Policy	Gross Area (acres)	Total Net Area (acres)	Land Use Allocation	Area by Use Type	Yield Factor	Yield (DU)	Yield (GFA)	Non-Res. Factor (gallons per sq ft per day)	Build-Out			25,000 Population		
										Built Out Average Water Demand GPD @ 235 gpd Res	*Built Out Peak Water Demand GPD @ 635 gpd Res	*Built Out Peak Sewer Demand GPD @ 635 gpd Res	25 k Pop. @ 235 gpd & 25% Nres. Average Water/Sewer GPD	25 k Pop. @ 635 gpd & 25% Nres. Peak Water Demand GPD	25 K Pop. @ 350 gpd & 25 % Nres Peak Sewer Yield GPD
South J. Hogg Interchange															
SJH1	MU	152	121												
				50% retail	61	0.20 FAR		529,062	0.1	52,906	52,906	52,906	13,227	13,227	13,227
				25% office	30	0.40 FAR		529,062	0.2	105,812	105,812	105,812	26,453	26,453	26,453
				25% MF	30	20 DU/acre	607			142,711	212,548	212,548	31,168	46,420	46,420
SUBTOTAL		152	121				607	1,058,125		301,430	371,267	371,267	70,848	86,100	86,100
Stevenson Branch															
SB1	Hwy 49	823	658												
				95% residential	625	2 DU/acre	1,250			293,865	794,060	437,671	64,180	173,423	95,587
				5% retail	33	0.20 FAR		286,691	0.1	28,669	28,669	28,669	7,167	7,167	7,167
SB2	RLM	1,144	915			4 DU/acre	3,662			860,559	2,325,340	1,281,683	187,946	507,854	279,920
SB3	S	21	17			students	1,500			49,290	49,290	49,290	49,290	49,290	49,290
SB4	DMU	42	33												
				50% retail	17	0.20 FAR		145,490	0.1	14,549	14,549	14,549	3,637	3,637	3,637
				40% office	13	0.40 FAR		232,785	0.2	46,557	46,557	46,557	11,639	11,639	11,639
				10% residential	3	4 DU/acre	13			3,140	8,484	4,676	686	1,853	1,021
SUBTOTAL		2,030	1,624				4,926	664,966		1,296,628	3,266,949	1,863,095	324,546	754,864	448,262
									Total MGD	17.956	30.034	23.100	4.563	7.201	5.686

Legend:

CB Conservation Buffer  
 DMU Downtown Mixed Use  
 F/A Farmstead and Agricultural

Gateway I-20 and Highway 69 Gateway  
 Hwy 49 Loop Road 49 Corridor  
 US 69 US 69 Corridor

I / P.D. Institutional and Planned Development  
 I-20 I-20 North Parallel Corridor  
 MU Mixed Use Center

RH High-Density Residential  
 RLM Low-Medium Density Residential  
 S School

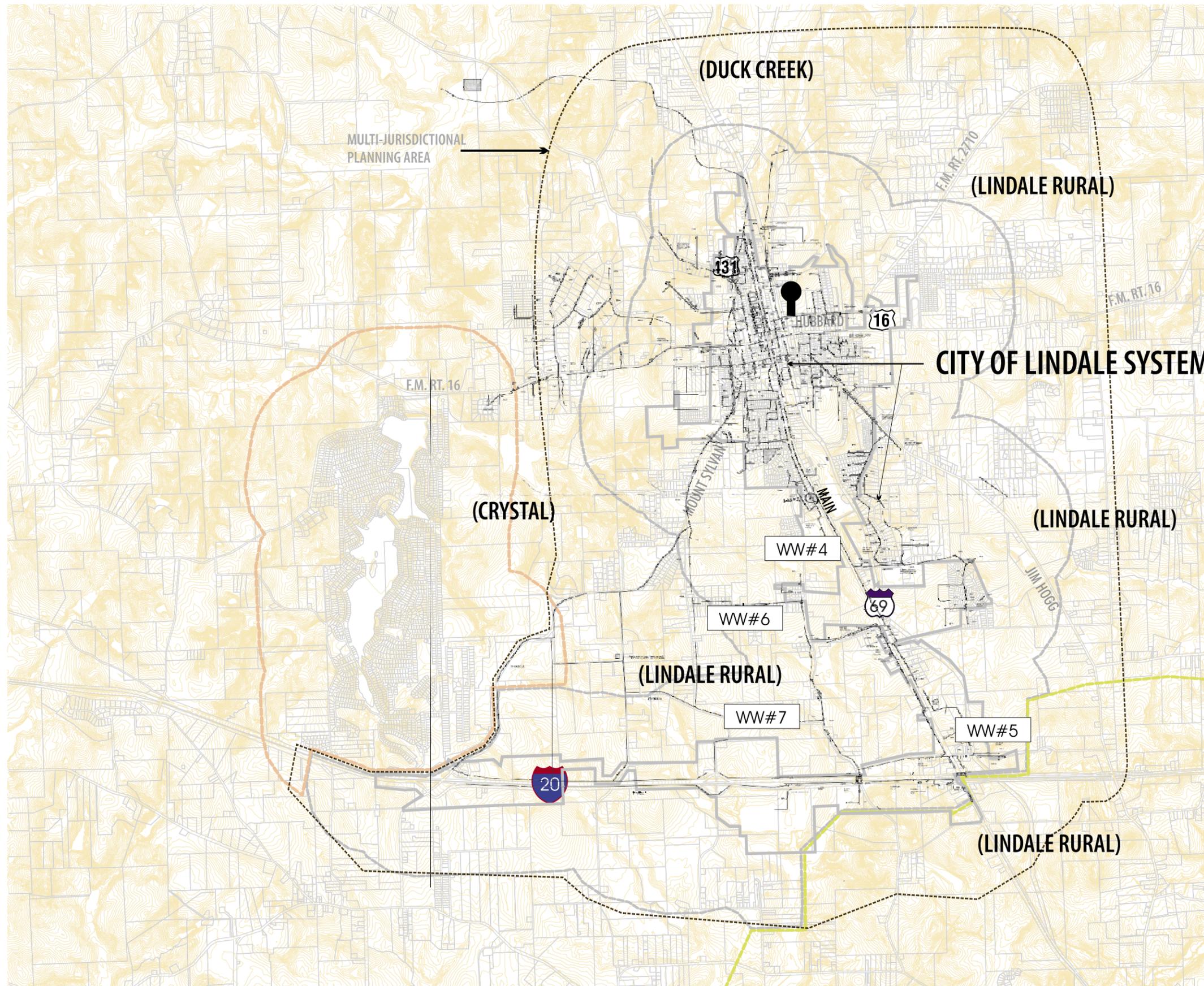
T / D Transportation and Distribution Center



LINDALE SECOND CENTURY  
COMPREHENSIVE PLAN

EXISTING WATER SYSTEM

Figure 6-3



**Legend**

- Parcel Lines
- Lindale City Limits
- Lindale ETJ Boundary
- Topography
- ETJ - Tyler
- ETJ - Hawi
- WW#5 Existing Water Well
- Elevated Storage Tank

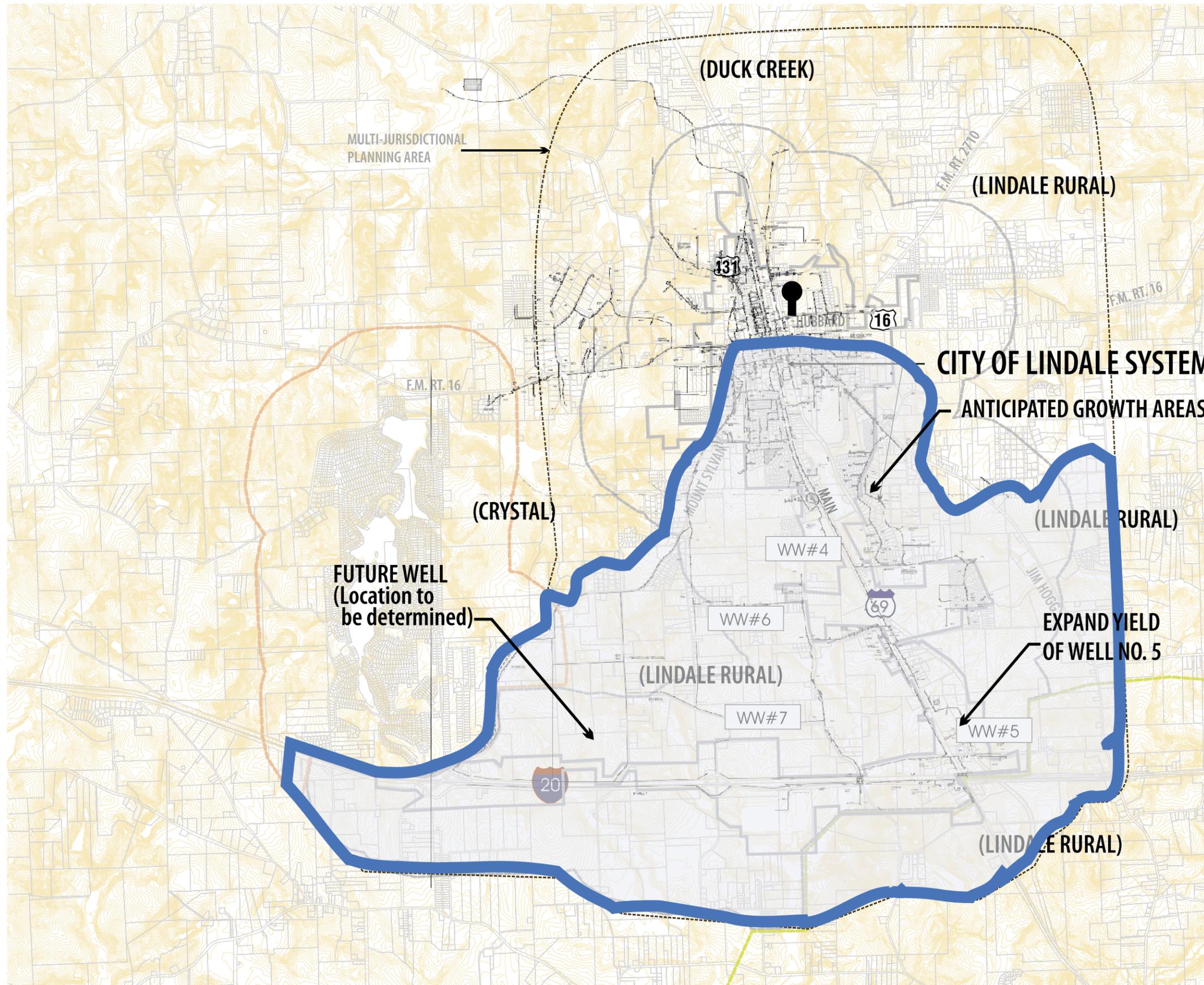




LINDALE SECOND CENTURY  
COMPREHENSIVE PLAN

WATER MASTER PLAN

Figure 6-4



**Legend**

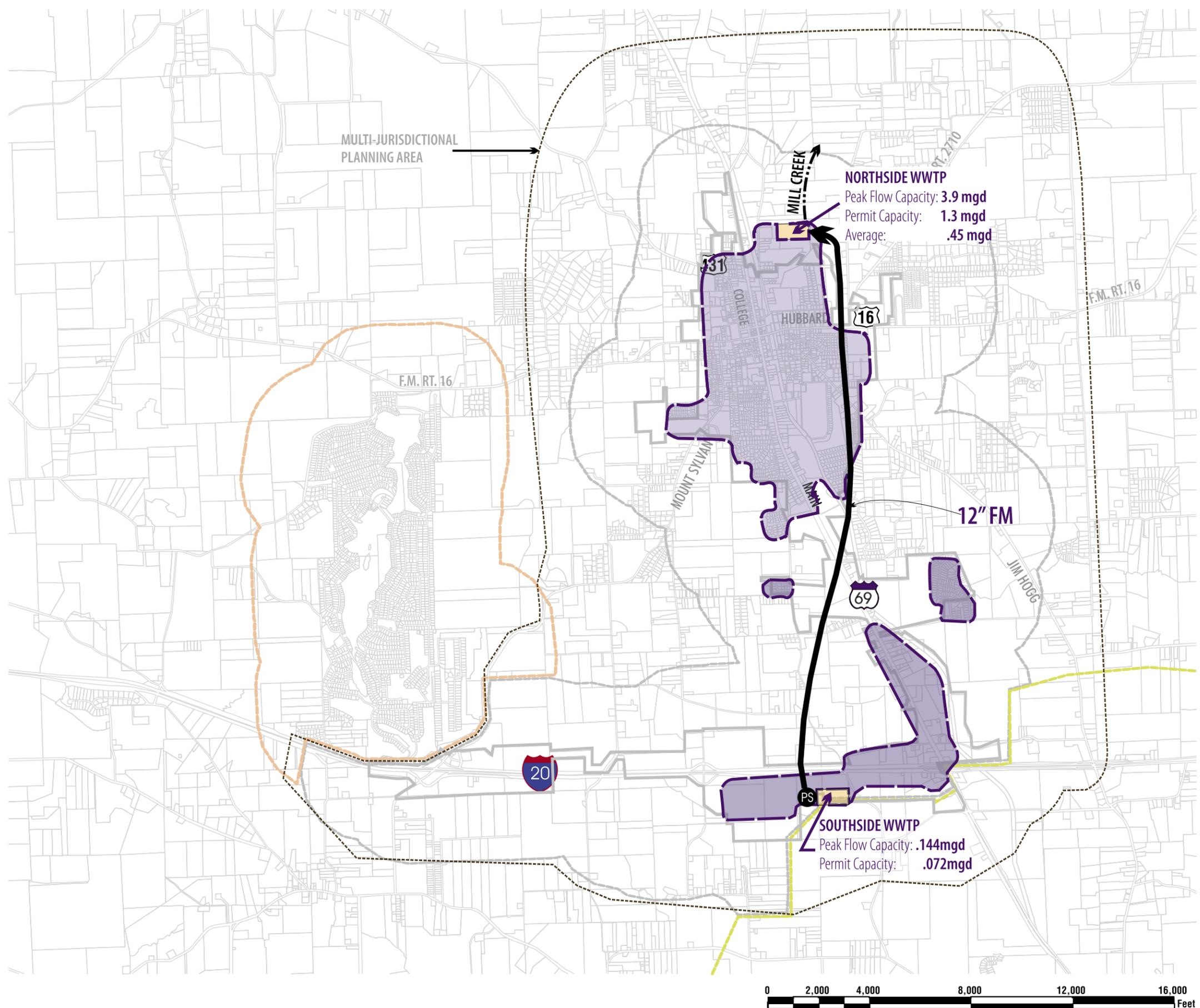
- Parcel Lines
- Lindale City Limits
- Lindale ETJ Boundary
- Topography
- ETJ - Tyler
- ETJ - Hawl
- WW#5 Existing Water Well
- Elevated Storage Tank





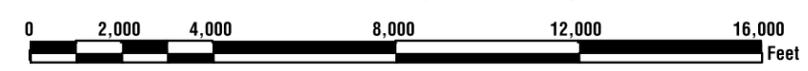
**LINDALE SECOND CENTURY  
COMPREHENSIVE PLAN**

**EXISTING SEWER  
SERVICE AREAS**  
Figure 6-7



**Legend**

- Parcel Lines
- Lindale City Limits
- Lindale ETJ Boundary
- ETJ - Tyler
- ETJ - Hawl
- Current Service Area
- Waste Water Treatment Plant
- Force Main
- Existing Pump Station

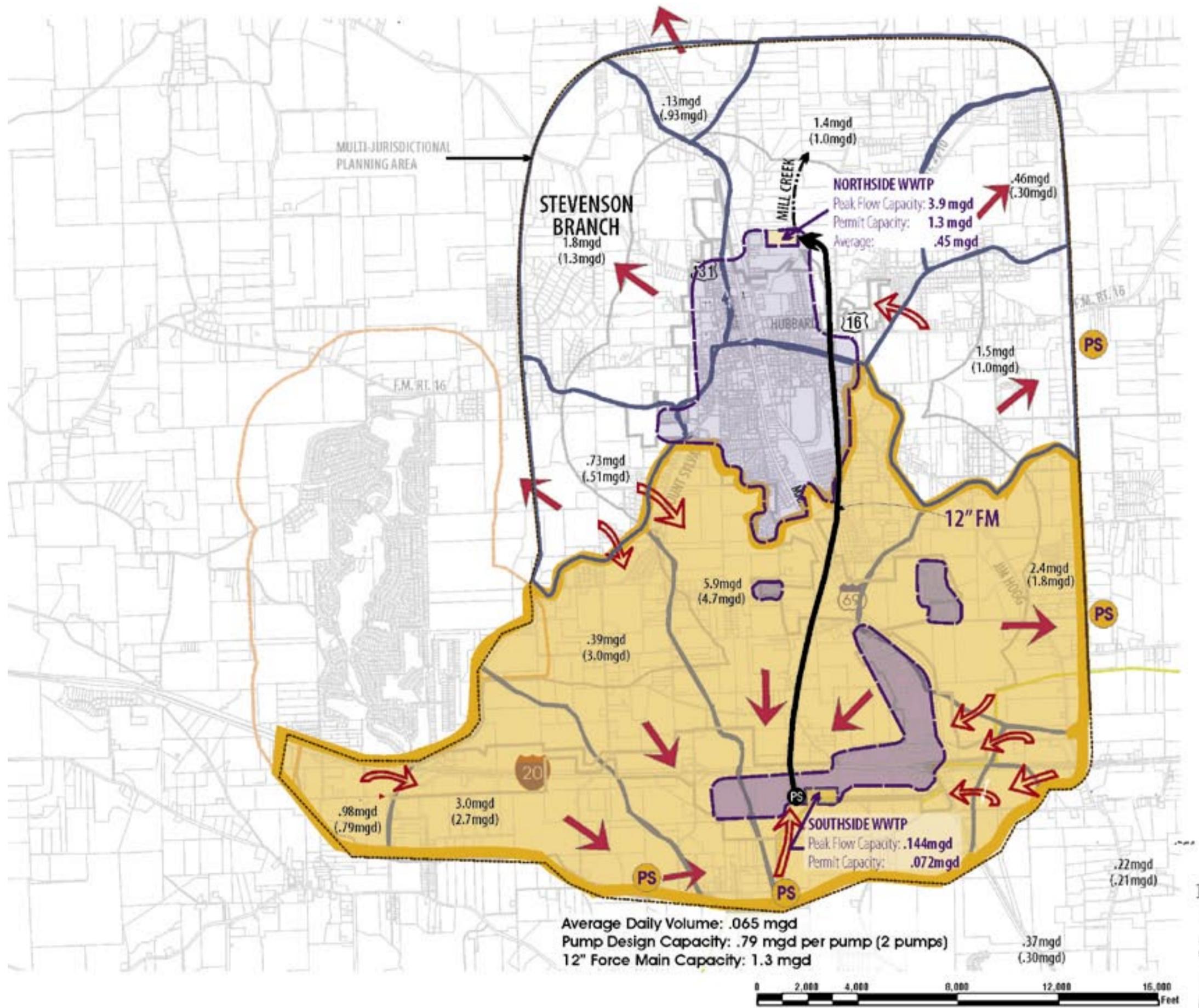




LINDALE SECOND CENTURY  
COMPREHENSIVE PLAN

SEWER MASTER PLAN

Figure 6-8



**Legend**

- Parcel Lines
- Lindale City Limits
- Lindale ETJ Boundary
- ETJ - Tyler
- ETJ - Hawl
- Current Service Area
- Waste Water Treatment Plant
- Force Main
- Existing Pump Station
- Future Pump Station
- Growth Sub-Basins
- .22mgd Build-Out Scenario Peak Daily Flow
- .21mgd Average Daily Flow
- Pumping Direction
- Gravity Flow





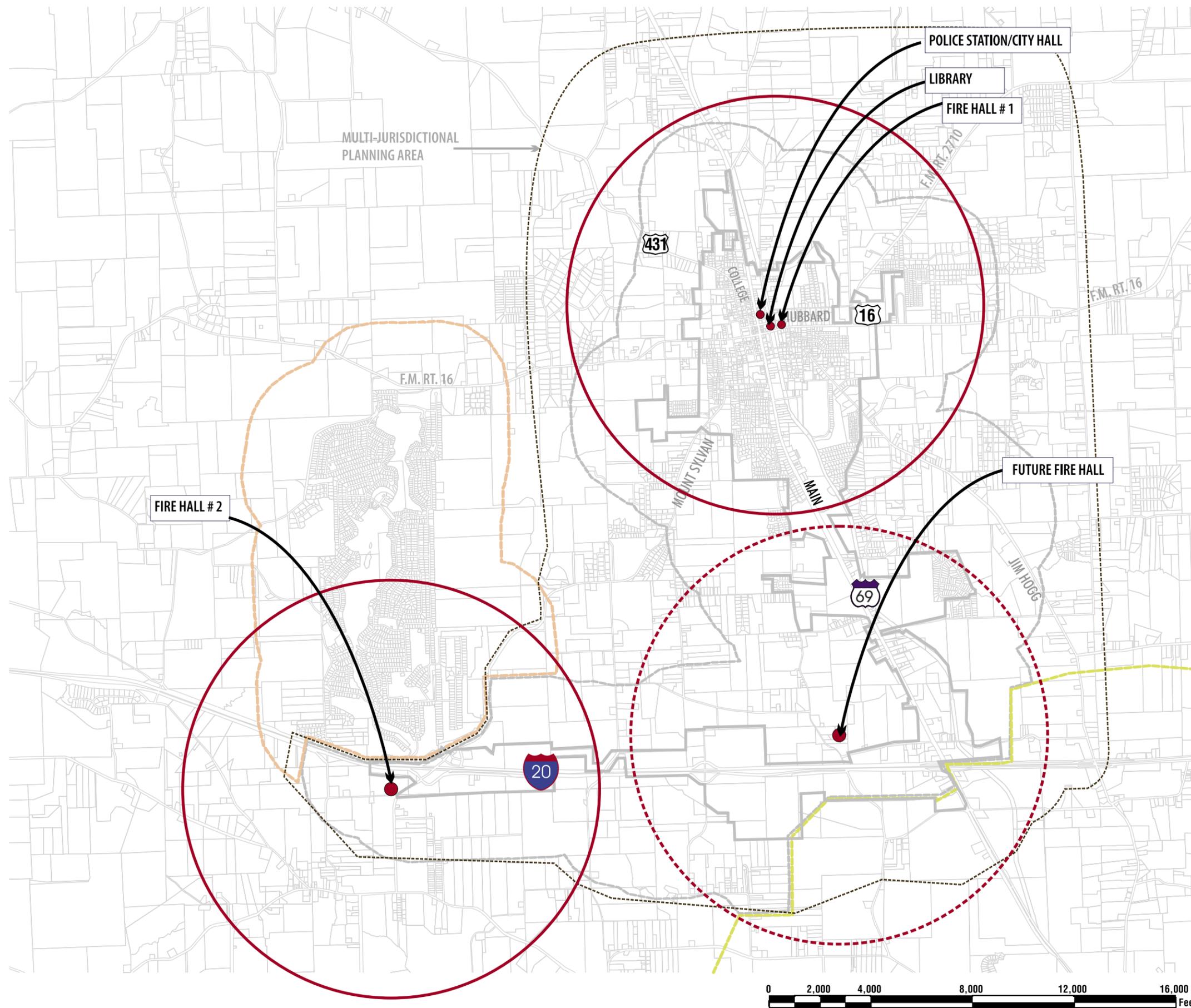
# LINDALE SECOND CENTURY COMPREHENSIVE PLAN

## COMMUNITY SERVICES

Figure 6-9

### Legend

- Parcel Lines
- Lindale City Limits
- Lindale ETJ Boundary
- ETJ - Tyler
- ETJ - Hawl



# Chapter 7 - Implementation





# Chapter 7 - Implementation

The Lindale Second Century Comprehensive Plan represents a bold vision for the future. It is a plan that will require a significant commitment of time, energy and financial resources to implement. It is a plan that must be implemented incrementally over time, one step at a time. A viable community is in a state of continual change and evolution over time. The current state and form of the community is the accumulative result of thousands of incremental decisions and actions that have occurred over an extended period of time.

Contemplating the implementation of a comprehensive plan with all of its inter-related elements can appear daunting if viewed in its entirety. The prospect for success is more optimistic, however, if approached as ongoing series of individual decisions and actions each made to move the community forward in a manner consistent with the Plan's stated goal and objectives. If it is necessary to state a primary purpose of the Lindale Second Century Comprehensive Plan, it would be to provide that a cohesive framework from which the community can make those incremental decisions in a logical and consistent manner. The trip forward, however, must be made one step at a time.

## Fiscal Resources

How to begin the implementation process for the many projects that this plan suggests as necessary to the City's future is an important final step in the planning process. Funding these improvements will be a complex process, drawing on many financial resources. The purpose of this section is not to develop a complete financial plan, or even to do a fiscal analysis. Those are specialized studies that should be conducted by specialists to evaluate funding alternatives, and to determine how to accomplish the vision of this plan. This section of the plan simply begins the groundwork for a more comprehensive fiscal analysis to be performed as the City begins to advance and implement projects.

The City of Lindale utilizes two forms of budget: the Operating budget and the Capital budget. The City uses the Operating budget to pay for day-to-day operations, such as employee salaries, supplies and services that the City needs to operate. The operating budget has little direct bearing on the initial

implementation of the Comprehensive Plan. However, the ongoing maintenance of city services and infrastructure that are suggested by this plan is paid for by the operating budget. If new roadways are constructed, the operating budget may need to be increased for maintenance of those roadways.

This plan primarily impacts the Capital budget. Capital projects are generally major expenditures that have a long-term useful life (usually in excess of five years). For example, purchase of police vehicles is usually considered an operating expense due to their short life and relatively low cost. Fire trucks on the other hand, are capital expenses due to their higher cost and 10 to 15-year life span. Capital projects are funded from many sources ranging from grants to bonds. Each funding source is suited to different types of projects. The City should always attempt to use grant programs to the extent they are available. Care should be exercised in accepting grants, however, since the terms and conditions of the funding may not be in the City's best interests.

## General Obligation Bonds

General Obligation (GO) Bonds are borrowed money. The City pledges its property tax revenues in repayment of the bonds. The City's ability to pay is evaluated by bond rating services. The terms of the bond (interest charged, etc.) are influenced by these ratings. These are long-term obligations for the City, 20 years typically, and should be used for large-scale projects due to the cost of issuing bonds. They are well suited for parks and roadway projects. The City has bonding "capacity" related to a number of factors, particularly the assessed value of the City.

## Revenue Bonds

These bonds are similar to GO Bonds in the sense that the resources of a revenue source are pledged to repay that debt. In this case, something other than property taxes is used. Revenue bonds are typically applied in utility applications, but can be used in any situation where there is a regular revenue stream to retire the debt.



## Impact Fees

Impact fees take many forms, and names. The basic concept is to require new developments to pay some part of the overall infrastructure cost in a specified area. Impact fee programs must be developed carefully to insure that the degree of financial exaction required is relatively commensurate with the degree of impact generated by the new development. The use of impact fees is more justifiable if used to mitigate the impacts clearly created by new development. As a general rule, the City should use other financial resources to correct pre-existing deficiencies, such as General Obligation bonds. Finally, there should be a basic geographic relationship between where the City elects to expend collected fees and the location of those developments that contributed the fees.

If implemented, impact fees should be thought of as just one component of the City's overall capital improvements funding program. Though impact fees are typically used for transportation and park facilities, they can be used also for capital improvements to water, sewer, parks and other community services.

## Land Use Plan Implementation

### Existing Zoning Code Applicability

The Second Century Plan recommends a broader range of land use categories and related activities than is found in the community as of the year 2004. The Plan also recommends more design guidelines for future development. As a policy document, the Plan recommends a more descriptive rather than prescriptive approach to zoning decisions.

Lindale's existing zoning code has minimal applicability in implementing the Plan. A new zoning code is strongly recommended as soon as possible. Communities typically revise their subdivision regulations with a new zoning code. One option is to combine the zoning and subdivision regulations into one *unified land development code*. A unified code has several advantages.

- All development regulations are found in one document
- There is one set of definitions
- Easier to change one document instead of two

The following is a comparison of the Second Century Plan and the existing zoning code.

**Conservation Buffer.** The Plan recommends a Conservation Buffer designation to the community principal drainage basin. The purpose of the Conservation Buffer is to protect the designated area as a proposed greenway and to protect potential wetlands in the south-central portion of the planning area. The existing zoning code does not have a natural area or wetlands conservation provision.

**Farmstead and Agricultural.** The Plan recommends that Farmstead uses have a minimum of five acres in order to avoid a proliferation of small residential lots. The existing zoning code has no size restrictions.

The Plan recommends that Agricultural uses be limited to crop production and animal pasturing. The existing code's Agricultural District AG allows a wider range of uses, some of which could have a negative impact (e.g. feedlot).

**Low and Medium Density Residential.** The Plan recommends that Low and Medium Density Residential allow single-family as a permitted use. Two-family and multi-family that are located on a Collector or Arterial street may be permitted as a conditional use. Densities are less than six units per acre.

The existing zoning code has four comparable categories.

- Single-Family Detached Residential District R-1, which has a maximum density of four units per acre
- Single-Family Detached Residential District R-2, which has a maximum density of five units per acre
- Manufactured Home Residential District, which has a maximum density of five units per acre
- Multiple Family Residential District MF-2, which has a maximum density of four units per acre



**High Density Residential District.** The Plan recommends that High Density Residential allow single-family, two-family, multi-family and retirement. Densities are six units or more per acre. Manufactured housing may be allowed as a conditional use.

The existing Zoning Code has three comparable districts.

- Multiple Family Residential District MF-1, which has a maximum density of 25 units per acre
- Planned Development Residential District PD, which has a maximum density of ten units per acre
- Mobile Home Residential District RH-1, which has a maximum density of eight units per acre

**Neighborhood Commercial.** The Plan recommends that Neighborhood Commercial allow retail, services and office commercial with a maximum building size of 50,000 square feet. The Neighborhood Commercial should be located close to the residential areas that it serves primarily.

The existing Zoning Code does not have a comparable district. General Business District B-1 is the nearest district.

**U.S. 69 Corridor.** The Plan recommends that U.S. 69 Corridor allow a mixture of neighborhood commercial and one, two and multi-family residential with a density of less than six units per acre.

The existing Zoning Code does not have comparable districts. The closest commercial district is General Business District B-1. The closest residential district is Multiple Family Residential District MF-1.

**Mixed Use Center.** The Plan recommends that Mixed Use Center allow retail, services, office and entertainment commercial with a maximum building size of 100,000 square feet. Multi-family residential of a density of six or more units per acre may be included.

The existing Zoning Code has no comparable category. It does not allow mixed use.

**I-20 North Parallel Corridor.** The Plan recommends that I-20 North Parallel Corridor allow retail, services, medical clinic/office and office commercial with a maximum building size of 100,000 square feet.

The existing Zoning Code has no comparable district. The closest commercial district is General Business District B-1.

**I-20 and U.S. 69 Gateway.** The Plan recommends that I-20 and U.S. 69 Gateway allow regional-scale retail, restaurant, lodging, exposition and tourism commercial with a building size that may exceed 100,000 square feet. Limited auto service may also be included.

The existing Zoning Code has one comparable district. It is General Business District B-1.

**Institutional and Planned Development.** The Plan recommends that Institutional and Planned Development allow regional-scale institutional uses including medical center, college, college associated research park and religious organization headquarters. Building size may exceed 100,000 square feet. It also allows community-scale office, medical office and services that are associated with and contained within the development.

The existing Zoning Code does not have a comparable district. The closest commercial district is General Business District B-1.

**Downtown Mixed Use.** The Plan recommends that Downtown Mixed Use allow specialty retail, food services, personal services, office, banking, worship, school, governmental services, light industrial and single-family residential.

The existing Zoning Code does not have a comparable district. It does not permit mixed use.

**Transportation and Distribution Center.** The Plan recommends that Transportation and Distribution Center allow warehousing/ shipping, fuel/truck-stop, light/medium-im-



pact industrial park, related office, construction contractor and automotive repair uses. It also allows limited food service and lodging.

The existing Zoning Code has one comparable district – General Industrial District GI-1.

**Loop Road 49 Corridor.** The Plan recommends that Loop Road 49 Corridor allow single-family uses with densities of six to twelve units per acre. Retirement and interim care housing and related services may be included. Private recreational amenities may be included.

The existing Zoning Code does not have a comparable district. It does not allow mixed use.

### Timing

The Second Century Plan proposes uses, the extent of which may involve twenty or more years before there is a comparable population and customer base. A premature rezoning/release of land for development may create a competitive environment that could alter the objective of this Plan. In general, land should be rezoned when the road and utilities infrastructure is in place. One example is the proposed Loop Road 49. Timing and funding by the Texas Department of Transportation is undetermined as of the year 2004. The date of this improvement could significantly affect the timing of rezoning in the western part of the planning area.

One option to controlling the timing of development is to zone land as agricultural on an interim basis. Interim agricultural zoning can also maintain larger land holdings. Larger land holdings are particularly desirable in the Institutional and Planned Development category of the Plan.

### Required Zoning Ordinance and Subdivision Updates

An assessment of the City's current land development policies and regulatory documents reveals that: a) the City's primary land development regulatory document, the Zoning Ordinance, was originally adopted in 1983; while that regulatory document has been updated periodically over the twenty-two years since its adoption, it is now considered outdated and lacking

in its ability to ensure that new development achieves the high standards of quality expected by the community; b) the current Subdivision Regulations, also adopted in 1983, are similarly in need of updating to effectively guide future land development; and c) while the City currently has authority to control the subdivision of property within its Extra Territorial Jurisdiction (ETJ), the City has no control over the use of property within the ETJ, nor does the County have any land use controls in those areas.

The principal tools utilized by the community to effectively implement the Comprehensive Plan will be:

- a) the Zoning Ordinance that governs the use, design and operational characteristics of property
- b) the Subdivision Regulations that guide the division of land and the construction of streets and utilities
- c) the City's annual Capital Budget that sets priorities for the expenditure of financial resources needed to fund the construction of public facilities and major capital purchases.

A preliminary review of the Zoning Ordinance and the Subdivision Regulations reveals that both documents are in need of major upgrading to effectively guide Lindale's future growth. Those two fundamentally important implementation documents should be updated accordingly following completion of this comprehensive planning process.

### Transportation/Mobility Plan Implementation

#### Staging/Phasing

A system-wide transportation network is developed on a segment by segment basis, and the role of the Transportation and Mobility Plan is to guide the incremental development of that system. One key to implementing transportation system improvements in a cost-effective manner is to strive for matching the level of roadway improvements provided to the demands on the system.

Segments of the roadway system are often constructed in phases or stages. An example might be the construction of the recommended East / West Connector Boulevard north of I-20. In the short term this street will be constructed in



segments as necessary to provide access to new developments along its frontages. Over time, however, this roadway will function increasingly as the major east/west arterial street corridor across the entire southerly sector of the community, especially when connections are completed between the major north-south arterial streets leading from the I-20 interchanges. As an economy measure it may be appropriate to allow initial construction of this future four lane commercial boulevard to occur as a two lane roadbed that is carefully designed to accommodate future widening to four lanes. It is this type of strategic implementation approach that may be required as some of the more significant components of the transportation system undergo initial construction. In all cases, however, the City should strive to secure at an early stage the street rights-of-way that will be required to construct the facility in its ultimate configuration.

The ability of Lindale to effectively manage its traffic is vitally dependent upon the level of financial resources made available to the City departments to provide for the needed improvements. Like any other program or initiative, the results are directly related to the budget available for these activities.

The City needs to utilize any and all federal, state, and/or county funding sources that are available to provide for transportation capital improvements. While the following funding and financing methods each present their own challenges, many communities intent on addressing their growing transportation and traffic needs have chosen to implement one or more of these programs. Some approaches are subject only to local approval; others may require special state legislation to enact.

- Adequate public facilities fees
- Traffic impact fees
- Special funding/taxing districts
- Tax increment financing districts
- General obligation bonds
- Increased state and federal grants
- Transportation dedicated property tax
- Transportation dedicated sales tax
- Developer contributions (often negotiated on a project-by project basis)

There also exist a number of additional State and Federal financial assistance programs that might be tapped by the City either individually or in combination to help finance major elements of the Transportation and Mobility Plan. Since this is a long range Plan, assistance program opportunities will change over time. It is incumbent on City officials to constantly monitor the availability of potential funding sources over the life of the Plan. Some of the key funding programs available at this time are identified below.

•**Transportation Enhancement Funds (TEA -21):** This versatile transportation funding program, administered by TxDOT, provides Federal funds to local communities on an 80/20 match basis to finance a diverse array of transportation systems. In addition to standard roadway improvements, many communities utilize these funds for bikeway, pedestrian and greenway construction programs that provide the community with alternatives to vehicular-based trips.

•**Community Development Block Grant Funds (CDGB):** These are formula-allocated funds administered through the Office of Rural Community Affairs' (ORCA) Texas Community Development Program (TCDP), and are funded by the US Department of Housing (HUD). As a community with less than a 50,000 population, Lindale would qualify for some of these funding sources under the "States and Small Cities Program." These grants can be used to fund neighborhood revitalization and economic redevelopment initiatives that benefit low and moderate income areas of the community. Many forms of mobility improvements needed within the downtown area may qualify for this type of program. They are competitive in nature and the City must meet primary beneficiary requirements.

•**Community Development** funds address housing and public facility needs including roadway improvements.

**The Texas Capital Fund** is a highly valuable financial program designed to allow communities to implement much needed roadway projects that are designed to create or retain permanent employment opportunities. Included within this Fund is a Downtown Revitalization Program, an Infrastructure Program and a Main Street Program that all allow funds to be used for roadway construction projects



Table 7-1. Year Capital Improvements-Roadways

Name	Classification	Improvement Required	New Growth (N) or Existing Deficiency (E)	Priority*	Funding Options**
East-West Connector	4 Lane Blvd	New, Widen	N	1	TCF
Harvey Road (433)	4 Lane Blvd	New construction	N	1	TCF
Harvey Road (433) South	4 Ln Arterial	Widen	N	1	TCF
Loop Road 49	Cont. Access	New construction	E, N	1	TxDOT
Missouri-Pacific Railbed	4 Ln Collector	New construction	N	1	TEA-21, TCF, Private
Perryman East Extension	2 Ln Collector	New construction	E	1	G/O
US 69	4 Lane Blvd	Access Management	E	1	TxDOT
US 69 Parallel Service Rd E.	4 Ln Collector	New construction	N	1	Private
474	4 Ln Collector	Widen	E, N	2	G/O
475	4 Ln Collector	New construction	N	2	Private
849	4 Ln Blvd	Widen	N	2	TxDOT
849	4 Ln Arterial	Widen	N	2	TxDOT
Experimental Station Ext.	4 Ln Collector	New construction, Widen	N	2	TCP, Private
Harvey Rd (433) North	4 Ln Arterial	Widen	N	2	G/O
Jim Hogg (431)	4 Ln Arterial	Widen	N	2	TxDOT
Mt. Sylvan	2 Ln Arterial	Widen	E, N	2	TxDOT
SR 16 (West)	4 Ln Arterial	Widen	E, N	2	TxDOT
US 69	4 Ln Blvd	Access Management	N	2	TxDOT
Wood Springs (463)	4 Ln Collector	Widen	N	2	G/O
475	2 Ln Collector	Widen	E, N	3	G/O
SR 16 (East)	4 Ln Arterial	Widen	E, N	3	TxDOT
*Priority:	**Funding Options				
1-High	TEA-21				
2-Moderate	TxDOT				
3-Low-Moderate	Private				
	TCF--Texas Capital Funds				



that support businesses to create or retain jobs. This program may be a good candidate for financing transportation improvements in the downtown area.

**Passthrough Toll Program:** Administered by TxDOT, this financial program is designed to allow local communities to accelerate the design and construction of a needed roadway project with assurance that the State will provide reimbursement for some or all of the costs over time based on estimated future vehicular usage of the facility. TxDOT has advised the City that this program may be used for construction of the initial phases of the East/West Connector Boulevard.

•**Rural Business Enterprise Grants (RBEG):** This program, administered by the Rural Business Cooperative Service of the US Department of Agriculture, provides grant funds to improve the economies of communities of less than 50,000 inhabitants. Fund uses may include the financing of industrial sites including access streets and other transportation improvements serving the site.

### Transportation/Mobility Strategic Initiatives

The following strategic initiatives relating to the Transportation and Mobility Plan are recommended:

- Promote construction of the East/West Connector Boulevard north of I-20 as an economic development strategy; aggressively pursue use of State and Federal funding assistance
- Work with TxDOT to implement an access management program and incorporate same within the Zoning Ordinance and Subdivision Regulations; require construction of US 69 parallel service roads as abutting properties undergo development and require the installation of joint access drives and intra-parcel connections between properties fronting the US 69 corridor
- Insist that TxDOT provide an interchange at the intersection of Loop Road 49 and SR 16
- Insist that TxDOT to construct Loop Road 49 in manner to accommodate the eventual extension of the East/West Connector Boulevard westward to FM 849
- Require full dedication of rights-of-way for collector

and arterial streets whenever abutting properties undergo subdivision for new development

- Pursue TEA-21 or equivalent funding sources to finance the design and construction of bicycle and pedestrian ways throughout the community; place a high priority on establishing a joint bikeway/pedestrianway facility along the former Missouri-Pacific railroad bed
- Pursue TEA -21 or equivalent funding sources to implement sidewalk, streetscape, landscape and traffic signalization improvements along US69 and SR 16 within the downtown area
- Incorporate within the Zoning Ordinance and Subdivision Regulations requirements that large scale developments submit traffic impact studies
- Establish provisions within the Zoning Ordinance and Subdivision Regulations that requires fair and reasonable participation by new development for roadway, utility and drainage infrastructure improvements

### Utility Plan Implementation

The significant requirements for expanded water supplies and sewer treatment capabilities to meet long-term growth demands in the community will require that the City be strategic both in its approach to the staging and design of system upgrades along with being creative and resourceful in finding adequate funding sources to finance those system upgrades.

In addition to the standard practice of issuing revenue bonds to finance initial capital improvement costs, and to charging monthly service fees to cover ongoing operating costs, other sources of funding assistance and participation should be investigated by the City, including:

- Pro-rata participation from new development initiatives
- Partnerships / joint venture initiatives with neighboring communities or independent utility providers
- Financial assistance programs

### New Development Participation

The City currently provides a high level of water and sewer



service to its existing customer base. Since the demand for future upgrades and expansions of these systems will be generated primarily by new development initiatives in the community, it is both logical and appropriate that this new development participate in funding these new facilities. Financial participation can take many forms. Property tax receipts and typical monthly utility sewer service charges are respectively common sources of revenue to retire revenue bonds used by the City to finance one time capital investments. Other methods of potential participation can range broadly from the requirement of dedicating land/easements for future service lines via administration of the Subdivision Regulations, imposition of system tap fees, or the establishment of development impact fees. The City should approach development-based participation programs carefully and equitably. Costs levied against new development invariably are passed on to the end user as in the form of a higher purchase price for a new home, higher rents or greater costs for services and goods offered by commercial tenants.

#### Partnerships / Joint Ventures

Costs associated with constructing and operating utility systems represent major financial commitments by the City. Increasing consumer demands, occasionally declining natural resources and ever increasing environmental performance standards and operational guidelines are prompting more and more local communities to seek partnership or syndication arrangements with adjacent jurisdictions as ways of controlling costs and reducing risk. This typically represents basic principles of economies of scale. Partnership and/or joint ventures can take the following forms:

- Water supply redundancies/emergency back-up arrangements with neighboring water district providers
- Multi-jurisdictional participation in sharing the design, construction and operating costs of new, regional scale treatment facilities

#### Financial Assistance Programs

Fortunately, there exist a number of State and Federal financial assistance programs specifically designed to assist

communities like Lindale in both planning and implementing utility system upgrades. Since utility system upgrades typically require significant initial capital outlays, it will be incumbent on the City to be aggressive in identifying and at times competing for meaningful financial assistance from a broad range of financial partners. Some of those potential programs are identified below.

#### Community Development Block Grant Funds (CDGB):

These are formula-allocated funds administered through the Office of Rural Community Affairs' (ORCA) Texas Community Development Program (TCDP), and are funded by the US Department of Housing (HUD). As a community with less than a 50,000 population, Lindale could qualify for funding sources under the "States and Small Cities Program."

- Community development funds can be used for sanitary sewer, water and drainage system improvements. These grants are competitive in nature and the City must meet primary beneficiary requirements.
- Funds made available through The Small Towns Environment Program (STEP) can be used to address water and sewer problems in the community. The funds may be used to acquire property for installing or improving utility systems.
- The Texas Capital Fund is designed to support projects that create or retain permanent employment opportunities. Included is an Infrastructure program that allows funds to be used for the acquisition of property for the construction of public facilities.

#### Water and Waste Disposal Systems for Rural

**Communities:** Administered by the Rural Utilities Service of the US Department of Agriculture, this broad-based program makes available project grants, direct loans and guaranteed loans to rural and small municipalities with fewer than 10,000 inhabitants according to the latest decennial census. Funding can be used for the construction or improvement to water (including wells) and waste water collection and treatment systems.



**Rural Business Enterprise Grants (RBEG):** This program, administered by the Rural Business Cooperative Service of the US Department of Agriculture, provides grant funds to improve the economies of communities of less than 50,000 inhabitants. Included in the permitted use of these funds is the financing of utility extensions to new industrial sites.

**Construction Grants for Wastewater Treatment Works:** Administered by the Office of Water of the Environmental Protection Agency, this program provides formula grants to municipalities for the construction of wastewater treatment plants that improve water quality.

#### Utility Strategic Implementation Initiatives

The following strategic initiatives are recommended to facilitate full implementation of the Utilities Plan:

- Adopt a regional perspective to addressing long-term sewer and water needs
- Maintain in good standing all current operating permits for the Southside WWTP to preserve option of reactivating that facility
- The City's utility engineer should utilize the growth demand factors identified by this Plan to model specific system design loads and upgrade requirements
- Coordinate with TxDOT to ensure that sleeves are installed beneath planned I-20 frontage roads for future installation of sewer and water lines
- Develop and negotiate an equitable formula to compensate independent providers for assumption of water service following annexation into the City

#### Parks, Recreation and Open Space Implementation Strategies

Continued expansion and enhancement of the City's parks and recreation program will require a comprehensive approach to both capital and operational funding sources. The City has a number of options available to address both short and long-term funding needs to implement the Parks, Recreation and Open Space Plan. In addition to the standard issuance of General Obligation bonds to acquire property, the City should explore

a number of other funding options to address both capital and on-going operational costs for these facilities. Since this is a long range Plan, assistance program opportunities such as those offered by the Federal government may change over time. It is incumbent on City officials to constantly monitor the availability of potential funding sources over the life of the Plan. Some of the key funding programs available at this time are identified below.

**•Community Development Block Grant Funds (CDGB):** These are formula-allocated funds administered through the Office of Rural Community Affairs' (ORCA) Texas Community Development Program (TCDP), and are funded by the US Department of Housing (HUD). As a community with less than a 50,000 population, Lindale could qualify for funding sources under the "States and Small Cities Program." Eligible uses for these funds include community centers.

**•Transportation Enhancement Funds (TEA -21):** This versatile transportation funding program, administered by TxDOT, provides Federal funds to local communities on an 80/20 match basis to finance a diverse array of mobility related systems. In addition to standard roadway improvements, many communities utilize these funds for bikeway, pedestrian and greenway construction programs that provide the community with alternatives to vehicular-based trips.

**•Rails to Trails Program:** The program is designed to encourage the conversion of abandoned railroad beds into community bikeway and pedestrian way corridors, such as along the former Missouri-Pacific rail line.

**•Private Foundation Grants:** one-time grants usually dedicated to providing a capital need; competitive process

**•Land Donations:** sources vary from private citizens to business corporations; usually driven by tax incentives or as a bequest; may also be derived from new land developments as a result of zoning incentives

**•User Fees:** typically dedicated to meet on-going operational cost needs

**•Development Impact Fees:** one-time fees (exactions) levied against new developments to fund capital costs for new facilities

**•Local Fund Raising Initiatives:** often applied to meet a specific capital need



**Strategic Implementation Initiatives**

The following strategic initiatives relating to the Parks, Recreation and Open Space Plan are recommended:

- Develop strategies that allows the City to acquire land for future park sites and open spaces in advance of actual need to secure preferred sites at favorable costs
- Create incentives in the Zoning and Subdivision Regulations to encourage large developments to dedicate common open spaces and amenity areas
- Establish dedicated funding mechanisms for sustainable park / open space land acquisition and development.
- Pursue TEA-21 funding sources to finance the design and construction of bicycle and pedestrian ways
- Coordinate with the Lindale Independent School District to locate and develop City parks in conjunction with school facilities
  - Encourage and support the efforts of civic and other types of non-public organizations to develop recreational facilities within the community

**Review, Evaluation and Update**

Communities are in a constant state of evolution and change. Therefore, community planning as a process must be continual and dynamic. Effective plans should not be static documents. They should be periodically reviewed and updated to reflect the changing conditions in the community. Technological advances and economic shifts in the marketplace are just some of the many factors that influence a community’s future direction and thus its plan. Therefore, the City should periodically step back and reassess the various elements of the Plan and update them accordingly.

**Review of Goals, Objectives and Policies**

A process for regular review of the goals, objectives and policies contained in the plan is recommended. The primary purpose of that review is to determine whether Plan elements are still valid and continue to reflect the desired direction for the community.

**Evaluation**

The effectiveness of the strategies laid out for implementing the plan should be evaluated to measure the city’s progress in achieving its goals. For example, did the community adopt a new zoning ordinance? If so, has the new ordinance brought development that is consistent with the community’s goals and objectives? Evaluating each plan element and the implementation strategies associated with it should become an institutionalized process that includes some measure of public participation.

Regular evaluation helps to identify weaknesses or shortcomings of the plan in application. In doing so, the evaluation process helps to streamline the update process by identifying areas that should be addressed when the plan is formally updated.

**Review and Update Schedule**

Different plan elements require different time periods for review and update. The table below shows the recommended time frames for evaluating and updating this plan and the implementation tools it recommends.

*Table 7-2. Implementation Strategies*

Implementation Strategies	Evaluation	Update
Comprehensive Plan	Annual	Every 3 to 5 years
Zoning Ordinance	Continuous	Amend as needed; update every 3 to 5 years (coordinate with plan)
Subdivision Regulations	Continuous	Same as zoning ordinance
Capital Budget	Annual	Annual
Transportation Plan	Annual	Every 3 to 5 years
Parks, Recreation and Open Space Plan	Annual	Every 5 years
Utilities Plan	Annual	Every 10 years

# Appendix 1 - The Planning Process





# Appendix 1 - The Planning Process

A community's Comprehensive Plan represents the collective visions and dreams of the community itself, and as such the Plan must originate from and be guided by meaningful citizen participation and input. Lindale's comprehensive planning process represents the collective wisdom and vision of dedicated City officials and hundreds of local citizens who devoted numerous evenings to come together to participate in the planning process. This resulting document, Lindale's Second Century Comprehensive Plan, is the successful culmination of that collective effort.

The Critical Date Schedule below outlines the major public participation milestones of this comprehensive planning process. The public participation process was structured around a series of five community-wide meetings that encouraged full citizen participation and input. Meetings were conducted in the evenings for the convenience of the participants, and held in a series of locations throughout the community. To ensure that the community's elected officials and citizens were working hand in hand throughout the Plan development process, all community meetings also constituted "special called meetings" of the City Council.

The City established a Comprehensive Planning Advisory Committee to guide and direct the City's planning consultants throughout the process. This Committee served as the consultant team's eyes and ears within the community. Critically important functions performed by the Advisory Committee included serving in the role of liaison with the community itself and providing meaningful insight, perspective and factual information about the community to the consultant team.

An early step in the comprehensive planning process involved conducting interviews with City officials and community leaders to identify issues and objectives. These interviews identified the following observations and goals regarding both current conditions within the community and long-term goals and objectives:

- Observation: Lindale is known for its quality of life and excellent school system
- Observation: High quality of life and excellent schools are attributes that attract new businesses, industries and

residents

- Observation: The community has experienced increasing rates of growth in recent years; Lindale may be on the verge of explosive growth.
- Observation: The southwest sector of the community is currently experiencing significant development activity.
- Observation: A new major east/west connector road is needed in the southern sector of the City that runs parallel with, and north, of I-20.
- Observation: The City currently does not have a planned industrial park.
- Goal: Prepare for growth by strengthening the community's land development policies and regulations; development and implement better design standards.
- Goal: It is important to preserve the historic integrity of the community while accommodating new, high quality growth.
- Goal: The City should expand its retail sales tax base.
- Goal: The City would welcome new, good-paying industrial jobs.
- Goal: The need for, and location of a new City Hall should be addressed.
- Goal: The City should explore opportunities for utilizing nearby lakes as long-term sources of water

Both electronic and print media were employed throughout the planning process. All public meetings were posted in the local community newspaper, the Lindale News and Times. The consultant team established a dedicated project web page for internet users. In addition to the project schedule, all information and materials presented at community-wide meetings, along with a series of technical memorandum reports prepared for the Advisory Committee were posted on the project web page. An electronic comment form was also provided that encouraged citizens to share their thoughts and insights with the consultant team and city officials.



## Critical Date Schedule

<b><u>Date</u></b>	<b><u>Event</u></b>
Oct 28 ('03)	Community Meeting #1*: Informational Kick-off
April 15 ('04)	Community Meeting #2*: General Development Approach <ul style="list-style-type: none"><li>•Issue Technical Memorandum #1: "Orientation and Assessment"</li><li>•Issue Technical Memorandum #2: "Economic Forecasting"</li></ul>
April 16	Comprehensive Plan Advisory Board Meeting #1 <ul style="list-style-type: none"><li>•Review Technical Memorandum #1</li><li>•Review Technical Memorandum #2</li><li>•Discuss "Development Approach" Meeting</li></ul>
April 23	Issue Technical Memorandum #3: "Development Approach" <ul style="list-style-type: none"><li>•Issue Technical Memorandum #4: "Goals and Objectives"</li></ul>
June 1	Community Meeting #3*: Alternative Development Scenarios
June 2	Comprehensive Plan Advisory Board Meeting #2 <ul style="list-style-type: none"><li>•Review Technical Memorandum #3</li><li>•Review Technical Memorandum #4</li><li>•Discuss Alternative Development Scenario Meeting</li></ul>
July 23	Issue Preliminary Draft Plans for: <ul style="list-style-type: none"><li>•Land Use</li><li>•Downtown and US 69 Corridor</li><li>•Transportation / Mobility</li><li>•Water and Sewer Utility (Existing)</li><li>•Parks, Recreation and Open Space</li></ul>
August 5	Community Meeting #4*: Present Draft Plans
August 6	Comprehensive Plan Advisory Board Meeting #3 <ul style="list-style-type: none"><li>•Discuss Draft Plans</li></ul>
September 7	Issue Comprehensive Plan Document (Public Hearing Draft)
October 4	Community Meeting #5*: Public Hearing
October 5	Comprehensive Plan Review by Advisory Committee and City Council
October 19	Approval by City Council

\*special called meeting of City Council

# Appendix 2 - Development Approach





# Appendix 2 - Development Approach

To provide meaningful guidance to Lindale's future growth and development, the City's Comprehensive Plan must originate from and reflect the aspirations, vision and values of the community itself. An important step early in the comprehensive planning process involves identification of the past, present and future role of the community in its local, regional and state-wide context, the perceived strengths and weaknesses of the community at the current point in time, and perhaps most importantly, the community's collective vision of its future.

Through a series of interviews with community leaders and key stakeholders, along with well attended community-wide work sessions, a diverse range of input from the community was collected and cataloged. The result of this important community-input process is identification of those elements that will provide a basic approach for future development of the community and thus form a foundation for the resulting Comprehensive Plan.

The following is a compilation of observations, comments and suggestions relating to the community's future vision for the City of Lindale.

## 1. Community-wide Strengths / Assets

- Schools system
- Faulkner Park
- Library
- Geographic location / convenience
- Natural beauty
- Good work ethic
- Sense of community)
- Hunting opportunities

## 2. Downtown: the "heart" of the community

- Need better sidewalks, lighting, curbs, landscaping signage
- Locate electric/communication lines under ground
- Building façade standards
- Provide more parking opportunities
- Make US 69 a unifying element instead of an intrusion
- Create entertainment destinations
- Provide new multi-purpose community center, museum,

city hall, indoor arena/large meeting space, and new quilting and pottery venue

- Re-use the cannery
- Consider bond issues for funding downtown improvements

## 3. Economic Strength and Diversity

- Encourage more restaurants, a movie theater, Starbucks, a golf course, medical specialists, retail, car dealerships, entertainment (music venue) destination, and teen activities
- Recruit more industry/high tech jobs for young people
- Attract more upscale professionals
- Improve the US 69 / Main Street corridor
- Create a reason for motorists to stop and spend a ½ day in town
- Promote the 'natural' products of the community – pottery and quilting

## 4. Plan Large: Anticipate a community of 25,000:

- Expand planning area beyond the existing ETJ boundary
- Anticipate infrastructure needs for a population of 25,000
- Anticipate an accelerated rate of growth; increase the growth projections
- Balance growth evenly throughout the community
- Community size is not a problem if good accessibility is maintained
- Address need for frontage roads along US 69 and I-20;

## 5. General Needs / Suggestions:

- A better 'mix' of population
- Provide amenities in all portions of the community
- More east/west street connections
- Provide adequate water and sewer
- Preserve locations for reservoirs to provide for future water needs
- More good schools
- Grow compactly; less spread-out
- Provide more recreational opportunities (e.g. sports and equestrian)
- More wholesome entertainment / activities for teenagers



- A new, smaller (regional) airport
- Better school district planning to reduce need for bus-ing
- More hunting areas
- Reduce number of manufactured homes, increase site-built homes
- More multi-family housing
- More affordable housing
- Better local access to higher education opportunities
- A municipal golf course
- Buffer noise from US 69 with landscaping add green spaces with each added community
- Continue motto of “Good Country Living With Pride”
- Provide more places for tractor-trailer drivers to park/sleep
- Relocate the truck stop from US 69

**6. Regional Coordination and Collaboration:**

- Maintain a good working relationship with TxDOT
- Improve planning coordination with Tyler, Mineola and New Harmony
- Consider implications of proposed Loop 49 roadway project
- Consider implications of US 69 widening to Mineola
- Consider the trans-Texas corridor
- Negotiate with Tyler for future control of areas south of I-20
- Reserve the most liberal need if possible

**7. General Challenges Ahead:**

- Achieving reasonable, balanced growth
- Develop in an ecologically sound and visually appealing manner
- Avoid turning into Tyler or Plano
- Maintain good accessibility
- Avoid creating traffic problems / implement good traffic planning
- Lindale does not control all areas needed for transportation & development improvements
- Accentuate natural attributes beauty/trees/opportunity to plant things
- Improve safety of Faulkner Park entry
- Protect water shed draining to planned 5000 acre park

# **Appendix 3 - Alternative Development Scenarios**







## Development Scenario One

### LOOP HWY. 49/HWY. 16 GATEWAY

- Public golf course
- Youth camp
- Retirement community
- Convenience commercial
- Institutional/Academic
- Agriculture & farmstead

### I-20/JIM HOGG RD. MIXED USE CENTER

- Commercial services
- Office & office park
- Residential (single & multi-family)
- Institutional

### RESIDENTIAL ZONES

- Low & Medium-density residential
- High density residential
- Institutional on limited basis
- Nursery
- Agriculture & farmstead

### CONSERVATION & ECOLOGICAL ZONES

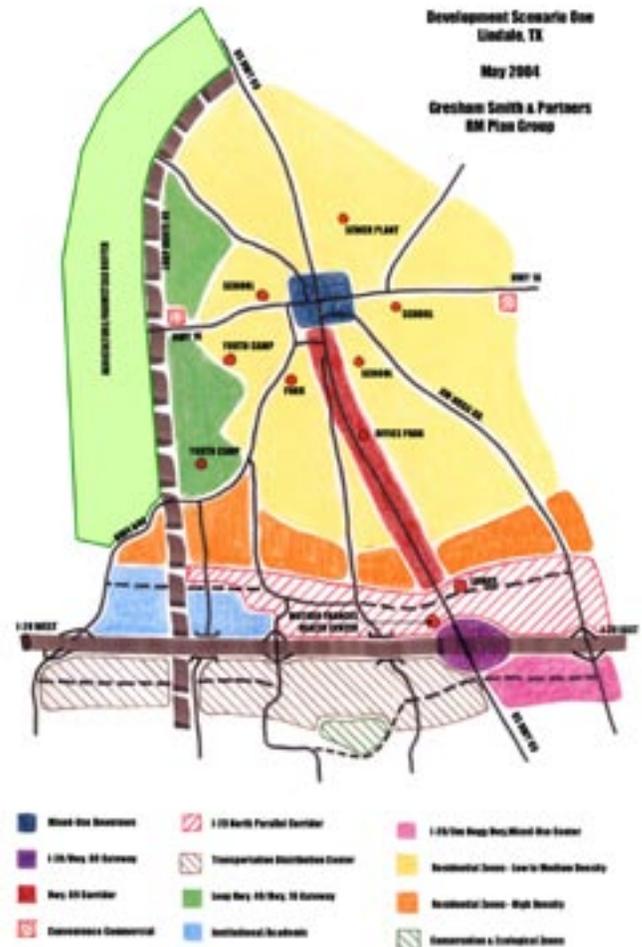
- Future lake reservoir
- Open space & park
- Wetland
- Scenic vista
- Agriculture & farmstead
- Historic & cultural

### CONVENIENCE COMMERCIAL

- Small-scale commercial retail & services

### INSTITUTIONAL/ACADEMIC

- Future academic campus





## Development Scenario Two

### MIXED-USE DOWNTOWN

- Multi-purpose Community Center
- City Hall & Service Center
- Commercial Services & Specialty Retail
- Mixed residential (single family, multi-family & elderly)
- Banking
- School
- Recreation & celebration space
- Central/shared parking

### I-20/HWY. 69 GATEWAY

- Restaurant & lodging expansion
- Retail commercial
- Exposition & Information Center
- Relocation of truck fuel center

### HWY. 69 CORRIDOR

- Office & office park
- Residential (single & multi-family)
- Institutional
- Cultural & Open Air Museum
- Nursery

### I-20 NORTH PARALLEL CORRIDOR

- Big box commercial
- Medical Center
- Office park
- Retail commercial
- Institutional/Academic
- Mixed residential

### TRANSPORTATION DISTRIBUTION CENTER

- Warehousing & shipping (e.g. Target)
- Industrial Park
- Limited food services & lodging
- Relocated truck fuel center





## Development Scenario Two

### LOOP HWY. 49/HWY. 16 GATEWAY

- Public golf course
- Youth camp
- Retirement community
- Convenience commercial
- Institutional/Academic
- Agriculture & farmstead

### I-20/LOOP 49 MIXED-USE CENTER

- Commercial services
- Office & office park
- Residential (single & multi-family)
- Institutional

### RESIDENTIAL ZONES

- Low & Medium-density residential
- High density residential
- Institutional on limited basis
- Nursery
- Agriculture & farmstead

### CONSERVATION & ECOLOGICAL ZONES

- Future lake reservoir
- Open space & park
- Wetland
- Scenic vista
- Agriculture & farmstead
- Historic & cultural

### CONVENIENCE COMMERCIAL

- Small-scale commercial retail & services

### INSTITUTIONAL/ACADEMIC

- Future academic campus

