



# AGENDA

**City of Lucas  
Planning and Zoning Commission  
September 8, 2016  
7:00 PM**

**City Hall - 665 Country Club Road – Lucas, Texas – 75002**

Notice is hereby given that a City of Lucas Planning and Zoning Meeting will be held on Thursday, September 8, 2016 at 7:00 pm at the Lucas City Hall, 665 Country Club Road, Lucas, Texas, 75002-7651 at which time the following agenda will be discussed. As authorized by Section 551.071 of the Texas Government Code, the Planning and Zoning Commission may convene into closed Executive Session for the purpose of seeking confidential legal advice from the City Attorney on any item on the agenda at any time during the meeting.

## Call to Order

- Roll Call
- Determination of Quorum
- Reminder to turn off or silence cell phones
- Pledge of Allegiance

## Public Hearings

1. Public hearing to recommend amendments to the Code of Ordinances, Chapter 14, Article 14.04, Division 8 - Accessory Buildings, Structures and Uses regarding square footage requirements for habitable space and accessory buildings; and amendments to the Code of Ordinances, Schedule Use Chart related to guest/servant quarters and accessory buildings with habitable space. **(Development Services Director Joe Hilbourn)**
  - A. Presentation by Development Services Director Joe Hilbourn
  - B. Conduct Public Hearing
  - C. Take action and provide recommendation to City Council regarding proposed revisions.
2. Public hearing to recommend amendments to the City's Code of Ordinances Chapter 10, Section 10.03.123 (i) Streets and Drainage for changes to street lighting requirements regarding where street lights are to be located and including an appeal process. **(Development Services Director Joe Hilbourn)**
  - A. Presentation by Development Services Director Joe Hilbourn
  - B. Conduct Public Hearing
  - C. Take action and provide recommendation to City Council regarding proposed revisions.

## Regular Agenda

3. Consider approval of the minutes of the August 11, 2016 Planning and Zoning Commission meeting. (City Secretary Stacy Henderson)
4. Discuss and give staff direction regarding updates to the Comprehensive Plan, Chapter 7 – Streets and Drainage, including the Thoroughfare Plan. (Development Services Director Joe Hilbourn)

## Executive Session

The Planning and Zoning Commission may convene in a closed Executive Session pursuant to Chapter 551.071 of the Texas Government Code.

An Executive Session is not scheduled for this meeting.

5. Adjournment.

## Certification

I hereby certify that the above notice was posted in accordance with the Texas Open Meetings Act on the bulletin board at Lucas City Hall, 665 Country Club Road, Lucas, TX 75002-7651 and on the City's website at [www.lucastexas.us](http://www.lucastexas.us) on or before September 1, 2016.

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Stacy Henderson  
City Secretary

*In compliance with the American with Disabilities Act, the City of Lucas will provide for reasonable accommodations for persons attending public meetings at City Hall. Requests for accommodations or interpretive services should be directed to Stacy Henderson at 972-912-1211 or by email at [shenderson@lucastexas.us](mailto:shenderson@lucastexas.us) at least 48 hours prior to the meeting.*



## City of Lucas Planning and Zoning Agenda Request September 8, 2016

Requester: Development Services Director Joe Hilbourn

### **Agenda Item:**

Public hearing to recommend amendments to the Code of Ordinances, Chapter 14, Article 14.04, Division 8 - Accessory Buildings, Structures and Uses regarding square footage requirements for habitable space and accessory buildings; and amendments to the Code of Ordinances, Schedule Use Chart related to guest/servant quarters and accessory buildings with habitual space.

- A. Presentation by Development Services Director Joe Hilbourn
- B. Conduct Public Hearing
- C. Take action and provide recommendation to City Council regarding proposed revisions.

### **Background Information:**

Proposed amendments to accessory buildings, structures and uses was brought before the Planning and Zoning Commission at their June 9, 2016 meeting for consideration. The item was then brought forward to the City Council on July 21, 2016. The City Council recommended sending the item back to the Planning and Zoning Commission for review and consideration of accessory buildings with habitable space regarding square footage, and giving relief to property owners for the use of storage containers for agricultural use in residentially zoned areas.

The Planning and Zoning Commission at their August 11, 2016 meeting recommended changes to allowable temporary structures, square footage requirements for habitable space and language clarification relating to habitable space.

The City of Lucas has adopted the International Residential Building Code which defines habitable space as “space in a structure for living, sleeping, eating or cooking. Bathrooms, toilet rooms, closets, halls, storage or utility spaces, and similar areas are not considered habitable spaces.”

### **Citizen Summary:**

There are two issues that the City of Lucas is addressing with the proposed amendment to the ordinances regulating accessory buildings, which include: 1) how an accessory building is defined; and 2) the square footage requirements for habitable space.

Issue 1: Approximately 24 months ago, City staff received a complaint regarding a citizen using a storage container as a permanent accessory building. Staff was unable to gain voluntary compliance and this issue was taken to court. The City lost its case because the Judge found that the City’s definition of an accessory building was not sufficient. The City is clarifying in its definition of accessory building to ensure that storage containers are not used as permanent structures.



## City of Lucas Planning and Zoning Agenda Request September 8, 2016

Issue 2: City staff received several concerns regarding “tiny houses” being used as habitable space. These “tiny houses” are considered accessory buildings but not habitable space, as they do not meet the requirements of the International Residential Building Code that is adopted as the City’s building standards. The City became concerned for the safety and welfare of a citizen living in a structure that does not comply with acceptable residential building standards.

In addition, at the October 6 City Council meeting, the Lucas City Council expressed concern over the size of accessory buildings with habitable space. The logic behind the concern is the circumventing of the zoning code, which helps us maintain our country feel through the preservation of open space. For example, if a citizen builds a 3,000 square foot home on a 2 acre residentially zoned lot and then wants to build a 2,500 square foot “accessory” building with habitable space, does that not circumvent the zoning requirements by allowing two homes and in essence transforming the zoning into one with more density.

The City Council can either approve this item, table to a future meeting or send back to the Planning and Zoning Commission for further review.

### **Supporting Documentation:**

1. Redlined changes to proposed Ordinance 2016-07-00840 to be approved by City Council.
2. Public hearing notice

### **Budget/Financial Impact:**

NA

### **Recommendation:**

The City Council recommended additional amendments to Code of Ordinances, Chapter 14, Article 14.04, Division 8, Accessory Buildings, Structures and Uses to reduce the square footage for accessory buildings with habitable space, and giving relief from storage container requirements to agriculture properties.

### **Motion:**

I make a motion to recommend approving/denying amendments to the Code of Ordinances, Chapter 14, Article 14.04, Division 8 - Accessory Buildings, Structures and Uses allowing square footage requirements for habitable space and accessory buildings up to \_\_\_\_\_ square feet in R-1, up to \_\_\_\_\_ square feet in R-1.5, and up to \_\_\_\_\_ square feet in R-2; and amendments to the Code of Ordinances, Schedule Use Chart related to guest/servant quarters and accessory buildings with habitual space, and regulating the use of storage containers as accessory buildings.



**ORDINANCE 2016-07-00840**  
**[ORDINANCE AMENDING CODE OF ORDINANCE**  
**CHAPTER 14 “ZONING”]**

**AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF LUCAS, COLLIN COUNTY, TEXAS, AMENDING THE LUCAS CODE OF ORDINANCES BY AMENDING CHAPTER 14 TITLED “ZONING” BY AMENDING ARTICLE 14.03 TITLED “DISTRICTS” BY AMENDING DIVISION 15 TITLED “SCHEDULE OF USES” BY AMENDING SECTION 14.03.801 TITLED “USE DESIGNATIONS” BY AMENDING SUBSECTION (e) TITLED “SCHEDULE OF USES CHART” TO INCLUDE “ACCESSORY BUILDINGS WITH HABITABLE SPACE”; BY AMENDING ARTICLE 14.04 TITLED “SUPPLEMENTARY REGULATIONS” BY AMENDING DIVISION 8 TITLED “ACCESSORY BUILDINGS, STRUCTURES AND USES” BY AMENDING SECTION 14.04.302 TITLED “ACCESSORY STRUCTURES, BUILDINGS AND USES PERMITTED” TO EXCLUDE TRAILERS, CONTAINERS, COMMERCIAL BOXES OR OTHER SIMILAR STRUCTURES; BY AMENDING SECTION 14.04.304 TITLED “GENERAL ACCESSORY BUILDINGS AND STRUCTURES REGULATIONS” TO INCLUDE REQUIREMENTS FOR ACCESSORY BUILDINGS WITH HABITABLE SPACE AND THEIR SIZE; PROVIDING A REPEALING CLAUSE; PROVIDING A SEVERABILITY CLAUSE; PROVIDING A SAVINGS CLAUSE; PROVIDING A PENALTY OF FINE NOT TO EXCEED THE SUM OF TWO THOUSAND DOLLARS (\$2,000) FOR EACH OFFENSE; AND PROVIDING FOR AN EFFECTIVE DATE.**

**WHEREAS**, the Planning and Zoning Commission of the City of Lucas, Texas and the City Council of the City of Lucas, Texas, in compliance with the laws of the State of Texas with reference to the granting of zoning classifications and changes, have given the requisite notices by publication and otherwise, and have held due hearings and afforded a full and fair hearing to all property owners generally and to all persons interested and situated in the affected area and in the vicinity thereof, and the City Council of the City of Lucas, Texas is of the opinion and finds that said zoning change should be granted and that the Comprehensive Zoning Ordinance and Map should be amended;

**NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF LUCAS, TEXAS:**

**Section 1.** The Code of Ordinances of the City of Lucas, Texas, is hereby amended by amending Chapter 14 titled “Zoning” by amending Article 14.03 titled “Districts” by amending Division 15 titled “Schedule of Uses” by amending Section 14.03.801 titled “Use designations” by amending Subsection (e) titled “Schedule of uses chart”; and, by amending Article 14.04 titled “Supplementary Regulations” by amending Division 8 titled “Accessory Buildings, Structures and Uses” by amending Section 14.04.302 titled “Accessory structures, buildings and uses permitted” and by amending Section 14.04.304 titled “General accessory buildings and structures regulations”, to read as follows:

**“CHAPTER 14  
ZONING**

...

**ARTICLE 14.03 DISTRICTS**

...

**Division 15. Schedule of Uses**

**Sec. 14.03.801 Use designations**

...

(e) Schedule of uses chart.

Use	AO	R2	R1.5	R1	VC	CB	OS	MH	LI	ED
<b>Residential uses</b>										
Accessory buildings	X	X	X	X	S		X	X		X
...										
Registered family home	S	S	S	S						
Accessory buildings with Habitable Space	X	X	X	X						
Single-family dwelling (detached)	X	X	X	X		X	X			X
Temporary field construction office	X	X	X	X	X	X			X	X
<b>Educational, institutional, public and special uses</b>										
...										

**ARTICLE 14.04 SUPPLEMENTARY REGULATIONS**

...

**DIVISION 8. Accessory Buildings, Structures and Uses**

...

**Sec. 14.04.302 Accessory structures, buildings and uses permitted**

(a) Accessory structures or buildings may be erected, maintained, and used for purposes which are clearly accessory to the principal or main structure, building or use permitted on the premises. Except in the agriculture district accessory buildings shall be built after the main building or structure.

...

(d) No trailers, containers, commercial boxes or other similar structures shall be used as accessory structures or buildings.

**Exception:** industrial, commercial, and agriculture uses, may use trailers, containers, or commercial boxes for temporary storage for a period not to exceed 90 days total in any one calendar year.

Commented [JH1]: New section

...

**Sec. 14.04.304 General accessory buildings and structures regulations**

In all residential districts, accessory structures shall comply with the following standards except as may be otherwise specifically provided for in this code:

...

(4) Accessory buildings that contain Habitable Space as defined by the International Residential Code adopted by the City shall be permitted in compliance with the following:

(A) Any accessory building where a kitchen or food preparation area is provided shall only be permitted on property that is located within an R-2 or AO zoning districts and only with a specific use permit. The specific use permit may only be granted provided the owners of the property enact a deed restriction with the city as party to the deed restriction that prohibits the use of the Habitable Space to be used for lease/barter agreement other than that of the full-time domestic staff providing support to the property, health-care providers for the residents of the main building or care takers of the property.

Commented [JH2]: Moved location

- (B) One accessory building containing Habitable Space not exceeding 600 square feet in area may be permitted as an accessory use to a single-family residence in R-1 zoning district provided there is no kitchen/food preparation area.
- (C) One accessory building containing Habitable Space not exceeding 600 square feet in area may be permitted as an accessory use to a single-family residence in R-1.5 zoning district provided there is no kitchen/food preparation area..
- (D) One accessory building containing Habitable Space not exceeding 1,000 square feet in area may be permitted as an accessory use to a single-family residence in R-2 or AO zoning district.
- (E) Detached accessory buildings containing Habitable Space shall be limited to a maximum height of 25 feet measured to the peak of the roof of the structure.
- (F) Accessory buildings containing Habitable Space shall only be occupied by an immediate member of the family that resides in the main building or a friend of the family that resides in the main building, if occupied by domestic staff, all adults occupying the quarters shall be full-time domestic servants providing support to the property, health care providers for the residents of the main building or care takers of the property.
- (G) Accessory buildings containing Habitable Space shall meet the requirements of the International Residential Code as adopted by the City from time to time.
- (H) Accessory buildings containing Habitable Space may not be rented out separate and apart from the main structure.
- (I) Accessory buildings containing Habitable Space shall be designed to be architecturally compatible with the main building and constructed of similar materials as the main building.

Commented [JH3]: Reduced from 1,000 ft to 600 feet

Commented [JH4]: Reduced from 1,250 ft to 600

Commented [JH5]: Reduced from 1,500 to 1,000 ft

Commented [JH6]: Added friend of the family that resides in the main building

**Secs. 14.04.305-14.04.340 Reserved.”**

**Section 2.** That all ordinances of the City of Lucas in conflict with the provisions of this Ordinance shall be, and same are hereby, repealed, provided, however, that all other provisions of said Ordinances are not in conflict herewith shall remain in full force and effect.

**Section 3.** That should any word, sentence, paragraph, subdivision, clause, phrase or section of this Ordinance of the City of Lucas Code of Ordinances, as amended hereby, be adjudged or



held to be voided or unconstitutional, the same shall not affect the validity of the remaining portions of said Ordinances or the City of Lucas Code of Ordinances, as amended hereby, which shall remain in full force and effect.

**Section 4.** That any person, firm or corporation violating any of the provisions or terms of this Ordinance shall be subject to the same penalty as provided for in the Code of Ordinances, as amended, and upon conviction in the municipal court shall be punished by a fine not to exceed the sum of Two Thousand Dollars (\$2,000.00) for each offense, and each and every day such violation shall continue shall be deemed to constitute a separate offense.

**Section 5.** That this Ordinance shall take effect immediately from and after its passage and publication in accordance with the provisions of the Charter of the City of Lucas, and it is accordingly so ordained

**DULY PASSED AND APPROVED BY THE CITY COUNCIL OF THE CITY OF LUCAS, COLLIN COUNTY, TEXAS, ON THIS 1<sup>st</sup> DAY OF SEPTEMBER; 2016.**

APPROVED:

\_\_\_\_\_  
Jim Olk, Mayor

APPROVED AS TO FORM:

ATTEST:

\_\_\_\_\_  
Joseph J. Gorfida, Jr., City Attorney  
(07-06-2016/77177)

\_\_\_\_\_  
Stacy Henderson, City Secretary



## NOTICE OF PUBLIC HEARING

Notice is hereby given, that the Planning & Zoning Commission of the City of Lucas, Texas will conduct a public hearing on Thursday, September 8, 2016 at 7:00 p.m. and City Council will conduct a second public hearing on Thursday, October 6, 2016 at 7:00 p.m. at Lucas City Hall, 665 Country Club, Lucas, Texas to consider changes to the City's Code of Ordinances more particularly described as follows:

Amending the Schedule of Use Chart and Sec. 14.04.302 Accessory structures, buildings and uses permitted

(a) Accessory structures or buildings may be erected, maintained, and used for purposes which are clearly accessory to the principal or main structure, building or use permitted on the premises. Except in the agriculture district accessory buildings shall be built after the main building or structure.

(d) No trailers, containers, commercial boxes or other similar structures shall be used as accessory structures or buildings.  
Exception: industrial, commercial, and agriculture uses, may use trailers, containers, or commercial boxes for temporary storage for a period not to exceed 45 days total in any one calendar year.

Sec. 14.04.304 General accessory buildings and structures regulations

In all residential districts, accessory structures shall comply with the following standards except as may be otherwise specifically provided for in this code:

(4) Accessory buildings that contain Habitable Space as defined by the International Residential Code adopted by the City shall be permitted in compliance with the following:

(A) Any accessory building where a kitchen or food preparation area is provided shall only be permitted on property that is located within an R-2 or AO zoning districts and only with a specific use permit. The specific use permit may only be granted provided the owners of the property enact a deed restriction with the city as party to the deed restriction that prohibits the use of the Habitable Space to be used for lease/barter agreement other than that of the full-time domestic staff providing support to the property, health-care providers for the residents of the main building or care takers of the property.

(B) One accessory building containing Habitable Space not exceeding 600 square feet in area may be permitted as an accessory use to a single-family residence in R-1 zoning district provided there is no kitchen/food preparation area.

(C) One accessory building containing Habitable Space not exceeding 600 square feet in area may be permitted as an accessory use to a single-family residence in R-1.5 zoning district provided there is no kitchen/food preparation area.

(D) One accessory building containing Habitable Space not exceeding 1,000 square feet in area may be permitted as an accessory use to a single-family residence in R-2 or AO zoning district.

(E) Detached accessory buildings containing Habitable Space shall be limited to a maximum height of 25 feet measured to the peak of the roof of the structure.

(F) Accessory buildings containing Habitable Space shall only be occupied by an immediate member of the family that resides in the main building or a friend of the family that resides in the main building, if occupied by domestic staff, all adults occupying the quarters shall be full-time domestic servants providing support to the property, health care providers for the residents of the main building or care takers of the property.

(G) Accessory buildings containing Habitable Space shall meet the requirements of the International Residential Code as adopted by the City from time to time.

(H) Accessory buildings containing Habitable Space may not be rented out separate and apart from the main structure.

(I) Accessory buildings containing Habitable Space shall be designed to be architecturally compatible with the main building and constructed of similar materials as the main building.

Those wishing to speak FOR or AGAINST the above item are invited to attend. If you are unable to attend and have comments you may send them to City of Lucas, City Secretary, 665 Country Club Road, Lucas, Texas 75002, email [shenderson@lucastexas.us](mailto:shenderson@lucastexas.us), and it will be presented at the Hearing. If you have any questions about the above hearing you may contact [jhilbourn@lucastexas.us](mailto:jhilbourn@lucastexas.us)



**City of Lucas**  
**Planning and Zoning Agenda Request**  
**September 8, 2016**

Item No. 02

Requester: Development Services Director Joe Hilbourn

**Agenda Item:**

Public hearing to recommend amendments to the City's Code of Ordinances Chapter 10, Section 10.03.123 (i) Streets and Drainage for changes to street lighting requirements regarding where street lights are to be located and including an appeal process.

- A. Presentation by Development Services Director Joe Hilbourn
- B. Conduct Public Hearing
- C. Take Action and provide recommendation to City Council regarding proposed revisions.

**Background Information:**

The existing Code of Ordinances states that street lighting shall be provided at street intersections within new subdivisions, at streets connecting to new subdivisions and shall conform to the latest edition of the Illuminating Engineering Society Handbook and the City's Code of Ordinances. The use of sodium vapor lights for street and parking lot illumination shall not be allowed in the City. Cost of installation of street lighting shall be borne by the subdivider. Cost of ongoing service and utilities shall be borne by the subdivider and included in a maintenance agreement as part of the Homeowner's Association (HOAs) documents.

The proposed changes would only require street lighting in new subdivisions when deemed necessary by the Public Works Director/City Engineer for safety. The same change is proposed for existing intersections and gives guidelines on the types of lights that are permitted.

The Public Works Director/City Engineer has been correcting discrepancies regarding the ongoing cost of maintenance and electrical service for street lights throughout the City. As part of that process and review of complaints about the discontinuance of the City paying for the upkeep of street lights that were the responsibility of HOAs throughout the City, the Council directed staff to bring this code section to the Planning and Zoning commission for review.

Currently street lights are located at signalized intersections by TxDOT, neighborhood entrances by HOAs, and the City Engineer is reviewing various locations along the FM roadways for illumination needs.

**Citizen Summary:**

This item is to reduce the requirements for the placement of streetlights in new construction and makes the installation of street lights optional unless required for safety purposes. This amendment also gives homeowners an appeal process if the City Engineer determines a street light is not warranted for safety reasons, this decision can be appealed to the City Council. If approved by the Planning and Zoning Commission, this amendment will move forward to the



**City of Lucas**  
**Planning and Zoning Agenda Request**  
**September 8, 2016**

Item No. 02

City Council on October 6, 2016. The City Council can either approve the item, table to a future meeting or send back to Planning and Zoning Commission for further review.

**Attachments/Supporting Documentation:**

1. Public Notice
2. Existing and Proposed code changes

**Budget/Financial Impact:**

N/A

**Recommendation:**

Give staff direction and feedback on the proposed code changes.

**Motion:**

I make a motion to recommend approving/denying amendments to the City's Code of Ordinances, Chapter 10, Section 10.03.123 (i) Streets and Drainage for amendments to street lighting requirements, changing where street lights are to be located, and including an appeal process for Lucas residents.



## NOTICE OF PUBLIC HEARING

Notice is hereby given, that the Planning & Zoning Commission of the City of Lucas, Texas will conduct a public hearing on Thursday, September 08, 2016 at 7:00 p.m. and City Council will conduct a second public hearing on Thursday, October 6, 2016 at 7:00 p.m. at Lucas City Hall, 665 Country Club, Lucas, Texas to consider changes to the City's Code of Ordinances more particularly described as follows:

Amending the city's code of ordinances Chapter 10, Section 10.03.123 (i) Streets and Drainage to: Street lighting shall be provided at street intersections at the request of the city engineer within a new subdivisions and at streets connecting to new subdivisions.

(i). Street lighting shall conform to the latest edition of the Illuminating Engineering Society Handbook and the city's lighting ordinances. The use of sodium vapor lights for street and parking lot illumination shall not be allowed in the city.

(j). Cost of installation of street lighting shall be borne by the subdivider. Cost of ongoing service and utilities shall be borne by the subdivider and included in a maintenance agreement as part of the homeowners' association documents.

(k). The city may at the request of the city engineer install lights at existing intersections the city engineer deems necessary.

(l). The city engineer may, based on field conditions, modify the requirements of this section.

(m) A citizen may appeal a request for street lightening denied by the city engineer to planning and zoning commission and with a positive recommendation from the planning and zoning commission to the city council. The request must be made in writing highlighting why the resident feels a street light is warranted along with the reason the city engineer denied the request. The request must be received by the Development Services Department no less than 20 days prior to the planning and Zoning commission meeting they wish to attend.

(n). All street lights shall conform to the city's lightening regulations and be the same or similar in nature to following examples of street lights.

Those wishing to speak FOR or AGAINST the above item are invited to attend. If you are unable to attend and have comments you may send them to City of Lucas, City Secretary, 665 Country Club Road, Lucas, Texas 75002, email [shenderson@lucastexas.us](mailto:shenderson@lucastexas.us), and it will be presented at the Hearing. If you have any questions about the above hearing you may contact [jhilbourn@lucastexas.us](mailto:jhilbourn@lucastexas.us)

Existing ordinance language:

- (i) The existing Code of Ordinances states that street lighting shall be provided at street intersections within new subdivisions, at streets connecting to new subdivisions and shall conform to the latest edition of the Illuminating Engineering Society Handbook and the City's Code of Ordinances. The use of sodium vapor lights for street and parking lot illumination shall not be allowed in the city. Cost of installation of street lighting shall be borne by the subdivider. Cost of ongoing service and utilities shall be borne by the subdivider and included in a maintenance agreement as part of the Homeowner's Association (HOAs) documents.
- (j) The city engineer may, based on field conditions, modify the requirements of this section.

Proposed amendments:

Street lighting shall be provided at street intersections at the request of the city engineer within a new subdivisions and at streets connecting to new subdivisions.

(i). Street lighting shall conform to the latest edition of the Illuminating Engineering Society Handbook and the city's lighting ordinances. The use of sodium vapor lights for street and parking lot illumination shall not be allowed in the city.

(j). Cost of installation of street lighting shall be borne by the subdivider. Cost of ongoing service and utilities shall be borne by the subdivider and included in a maintenance agreement as part of the homeowners' association documents.

(k). The city may at the request of the city engineer install lights at existing intersections the city engineer deems necessary.

(l). The city engineer may, based on field conditions, modify the requirements of this section.

- (m) A citizen may appeal a request for street lightening denied by the city engineer to planning and zoning commission and with a positive recommendation from the planning and zoning commission to the city council. The request must be made in writing highlighting why the resident feels a street light is warranted along with the reason the city engineer denied the request. The request must be received by the Development Services Department no less than 20 days prior to the planning and Zoning commission meeting they wish to attend.

(n). All street lights shall conform to the city's lightening regulations and be the same or similar in nature to following examples of street lights.







# City of Lucas

## Planning and Zoning Agenda Request

### September 8, 2016

Requester: City Secretary Stacy Henderson

#### **Agenda Item:**

Consider approval of the minutes of the August 11, 2016 Planning and Zoning Commission meeting.

#### **Background Information:**

NA

#### **Attachments/Supporting Documentation:**

1. Minutes of the August 11, 2016 Planning and Zoning Commission meeting.

#### **Budget/Financial Impact:**

NA

#### **Recommendation:**

NA

#### **Motion:**

I make a motion to approve the minutes of the August 11, 2016 Planning and Zoning Commission meeting.



City of Lucas  
Planning and Zoning Commission  
Regular Meeting  
August 11, 2016  
7:00 PM  
City Hall – 665 Country Club Road

## MINUTES

### Call to Order

Chairman Rusterholtz called the meeting to order at 7:00p.m.

**Commissioners Present:**

Chairman Peggy Rusterholtz  
Vice Chairman David Keer  
Commissioner Joe Williams  
Commissioner Andre Guillemaud  
Commissioner Brian Blythe

**Staff Present:**

City Manager Joni Clarke  
Development Services Director Joe Hilbourn  
Public Works Director/City Engineer Stanton Foerster  
Administrative Assistant Linda West

**Commissioners Absent:**

Alternate Commissioner Scott Sperling

**City Council Liaison Present:**

Mayor Jim Olk

**Staff Absent:**

Attorney Joe Gorfida

It was determined that a quorum was present. Everyone was reminded to turn off or silence cell phones and the Commission recited the Pledge of Allegiance.

### Regular Agenda

**1. Consider approval of the minutes of the July 14, 2016 Planning and Zoning Commission meeting.**

Commissioner Guillemaud and Chairman Rusterholtz noted the following corrections to the minutes:

Page 4, paragraph 3, add a period “.” to the last sentence. The sentence should read, “Mr. Hilbourn also noted that requirements related to deed restrictions had been placed in the section.”

Page 4, paragraph 4, add the wording “as rental units” in place of “as habitable space”. The sentence should read “The Commission agreed that this requirement should remain in place to notify homeowners that accessory buildings cannot be used as rental units and can be enforced through the Code of Ordinances.”

**MOTION:** *A motion was made by Commissioner Blythe, seconded by Vice Chairman Keer to approve the minutes of the July 14, 2016 Planning and Zoning Commission meeting as amended. The motion passed unanimously by a 5 to 0 vote.*

**2. Consider the request by BlueSky Development for final plat approval for Five Oaks Estates, a parcel of land situated along Orr Road and Winningkoff Road proposing 17 lots on 63.686 acres located in the Calvin Boles Survey, Abstract No. 28.**

A presentation was given by Development Services Director Joe Hilbourn outlining the components of the final plat. The final plat proposed 17 lots with no additional improvements and gave consideration to frontage for three lots reducing the required frontage from 200 feet to 25 feet. The developer would repave Orr Road adjacent to the development with consideration of impact fees in the amount not to exceed the amount collected, when 75% of the permits had been issued. Mr. Hilbourn noted that all lots would face existing roadways and the request meets the City's Comprehensive Plan and all City requirements.

The Commission and Mr. Hilbourn discussed procedures for staff to submit proposed development agreements for future agenda items to the Planning and Zoning Commission for their review.

**MOTION:** *A motion was made by Commissioner Williams, seconded by Commissioner Guillemaud to approve the request by BlueSky Development for final plat for Five Oaks Estates a parcel of land situated along Orr Road and Winningkoff Road proposing 17 lots on 63.686 acres located in the Calvin Boles Survey, Abstract No. 28. The motion passed unanimously by a 5 to 0 vote.*

**3. Consider amendments to the Code of Ordinances, Chapter 14, Article 14.04, Division 8 - Accessory Buildings, Structures, and Uses regarding square footage requirements for habitable space and accessory buildings; and amendments to the Code of Ordinances, Schedule Use Chart related to guest/servant quarters and accessory buildings with habitable space.**

Development Services Director Joe Hilbourn stated that the proposed amendments to the Code of Ordinances for accessory buildings, structures, and uses were brought before the Planning and Zoning Commission at their July 14, 2016 meeting for consideration. The item was then brought forward to the City Council on July 21, 2016. The City Council recommended deferring the item back to the Planning and Zoning Commission for consideration of habitable space regarding square footage, and providing relief to property owners for the use of storage containers for agricultural use in residentially zoned areas.

Mr. Hilbourn gave a presentation summarizing the proposed amendments to the Code of Ordinances relating to accessory buildings that contain habitable space. Mr. Hilbourn noted the exclusion of trailers and storage containers for use as accessory buildings, and the addition of an exception to this exclusion for agricultural, industrial, and commercial properties use of trailers, containers, or commercial boxes for temporary storage. Mr. Hilbourn also reviewed the proposed amendments regarding square footage for accessory buildings with habitable space in residentially zoned areas.

The Commission discussed the proposed amendments relating to use of the structures for temporary storage, the proposed square footage, the definition of habitable space, and clarification of the regulations pertaining to accessory buildings with and without an allowance for a kitchen area within the different residential zones.

The Commission along with City Council liaison Mayor Jim Olk directed staff to restructure the amendments to further clarify the regulations for the use of accessory buildings with habitable space in R-1 and R1.5 that currently do not allow for kitchen areas within accessory buildings. The Commission was in agreement with the square footage proposed by Mr. Hilbourn and Chairman Rusterholtz commented that Section 14.04.304(4)(I) of the ordinance, the wording “guest/servant quarters” should be changed to “habitable space”.

**4. Discuss and give staff direction regarding updates to the Comprehensive Plan, Chapter 6 Parks, and Open Space, including maps for trails and parks.**

Development Services Director Joe Hilbourn explained that this item was originally before the Planning and Zoning Commission at their June 9, 2016 meeting for their review to provide staff direction on drafting updates to Chapters 5 and 6 of the Comprehensive Plan. Chapter 5, Economic Development, was discussed at the July 14, 2016 Planning and Zoning Commission meeting.

The Commission discussed with Mr. Hilbourn the location of the trail map on the Comprehensive Plan as it relates to future development. The Commission also requested clarification on the total number of six parks represented in the section “Existing Parks and Open Space”, four of which were developed by the City of Lucas.

This was a discussion item only, no action was taken.

**5. Discuss and give direction to staff regarding proposed amendments to the Code of Ordinances, Chapter 10, Section 10.03.123 (i) Streets and Drainage for changes to street lighting requirements.**

A presentation was given by Development Services Director Joe Hilbourn outlining the existing Code of Ordinances which states that street lighting shall be provided at street intersections within new subdivisions, at streets connecting to new subdivisions, and shall conform to the latest edition of the Illuminating Engineering Society Handbook and the City’s Code of Ordinances. Mr. Hilbourn added that this section also does not allow certain types of lights and the City Engineer may, based on field conditions, modify the requirements of this section.

Mr. Hilbourn highlighted the changes and proposed amendments including an appeal process, the ownership, associated installation costs, utility service, maintenance of the street lights, and the requirement of street lighting in subdivisions and intersections as deemed necessary by the City Engineer for safety purposes.

The Commission discussed the street lighting costs and expenses that may be imposed on the City, HOAs, and homeowners, and the consequences if those costs are not paid. The street light requirements and compliance in regards to the City’s Dark Sky ordinance were also reviewed.

Public Works Director/City Engineer Stanton Foerster explained the background of the City correcting discrepancies regarding the ongoing cost of maintenance and electrical service for street lights throughout the City. As a part of that process, review of requests for safety lighting and complaints about the discontinuance of the City paying for the upkeep of street lights that were the responsibility of HOAs throughout the City, the City Council directed staff to bring this code section to the Planning and Zoning Commission for review. Mr. Foerster further explained the current process of reviewing the need and requests for street lighting in various areas of the City, the

associated costs, the different street light options available, and the responsibilities of utility companies and developers.

Chairman Rusterholtz called the following individual forward to speak regarding this item:

Diane Diercks, 820 Maplewood Lane, spoke regarding the dangers she had experienced at Ingram Lane and West Lucas Road since that street light was turned off by the City, and stated various safety issues for the reason of her request to have the street light turned back on.

Chairman Rusterholtz stated that Ms. Diercks' request would be passed on to staff to address since the ordinance for an appeal process is yet to be in place.

The Commission directed Mr. Hilbourn to move forward with the proposed amendments.

## **6. Adjournment.**

***MOTION:** A motion was made by Commissioner Guillemaud, seconded by Commissioner Williams to adjourn the meeting at 7:59p.m. The motion passed with a 5 to 0 vote.*

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Peggy Rusterholtz, Chairman

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Stacy Henderson, City Secretary



# City of Lucas

## Planning & Zoning Agenda Request

### September 8, 2016

Requester: Development Services Director Joe Hilbourn

#### **Agenda Item:**

Discuss and give staff direction regarding updates to the Comprehensive Plan, Chapter 7 - Streets and Drainage, including the Thoroughfare Plan.

#### **Background Information:**

The Comprehensive Plan should be updated periodically to reflect changes in the community. The last update to the Comprehensive Plan was conducted in 2006. The City had its Comprehensive Plan kick off meeting that included the Planning and Zoning Commission, City Council and the Parks and Open Space Board on June 7, 2015 and the Planning and Zoning Commission has begun their review and update of components of the Comprehensive Plan. The items to be considered for update include Chapter 7 - Streets and Drainage, and the Thoroughfare Plan.

This is a technical review only and draft formatted Chapters 1 through 7 have been included as part of the packet.

#### **Citizen Summary:**

There is no state law that requires a City to have a Comprehensive Plan; however, if a City would like to enforce zoning it is required to have an adopted Comprehensive Plan that is updated from time to time. The Comprehensive Plan is a long-range planning tool that is intended to be used by the City to guide growth and development of the community for the future. The Comprehensive Plan was adopted in 1980 and as the City grows, the Plan needs periodic updating, the last update was 2004. The goal of this update is to continue to make long-range plans for the community of Lucas as it continues to grow. At this time the Comprehensive Plan has been brought before the Planning and Zoning Commission as a standing item each month. The Comprehensive Plan is required to be adopted following two public hearings. Public hearings for adoption of the amended Comprehensive Plan are tentatively scheduled for January or February, 2017.

#### **Attachments/Supporting Documentation:**

1. Chapter 7 of the City's Comprehensive Plan.
2. Approved Thoroughfare Plan



**City of Lucas**  
**Planning & Zoning Agenda Request**  
**September 8, 2016**

Requester: Development Services Director Joe Hilbourn

**Budget/Financial Impact:**

NA

**Recommendation:**

N/A

**Motion:**

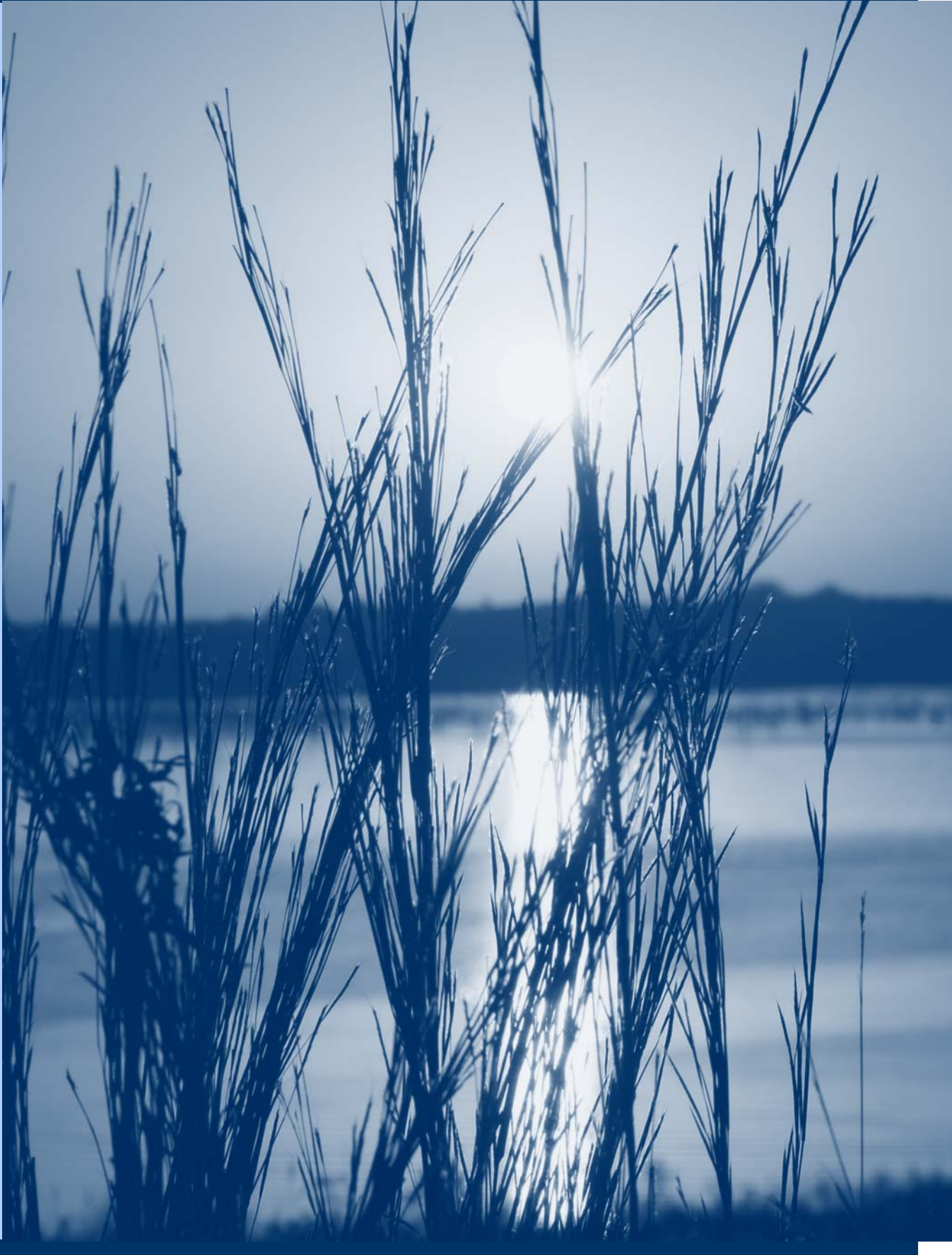
N/A

# CITY OF LUCAS



# COMPREHENSIVE PLAN





# TABLE OF CONTENTS

CHAPTER 1 INTRODUCTION ..... 4

CHAPTER 2 POPULATION ..... 6

CHAPTER 3 HOUSING ..... 8

CHAPTER 4 LAND USE ..... 10

CHAPTER 5 ECONOMIC DEVELOPMENT ..... 19

CHAPTER 6 PARKS, RECREATION AND OPEN SPACE..... 24

CHAPTER 7 STREETS AND DRAINAGE ..... 30

CHAPTER 8 WATER SYSTEM .....

CHAPTER 9 CAPITAL IMPROVEMENT PROJECTS .....

APPENDIX MAPS .....



# INTRODUCTION

## PURPOSE

The comprehensive plan can be defined as a long-range planning tool that is intended to be used by city staff, decision-makers and citizens to guide the growth and physical development of a community for its future growth. The original plan adopted in the late 1980's initiated the framework for the City of Lucas. Over the years it has been reviewed and updated as growth dictated. Having this comprehensive framework will assist in evaluating proposed actions, decisions concerning changes in local economic and demographic conditions, and resources as well as guiding future planning scenarios for Lucas.

The State of Texas has established laws that specifically regulate the way incorporated cities such as Lucas can ensure the health, safety, and welfare of their citizens. It gives them the power to regulate the use of land, but only if such regulations are based on a comprehensive plan. Lucas strives to guide future development to accommodate new development without sacrificing the unique character of the city.

In basic terms, the primary objectives of a comprehensive plan are to:

- Manage growth in an orderly manner,
- Minimize potential conflicts between land uses,
- Provide for efficient and cost-effective delivery of public services, and
- A rational and reasonable basis for making decisions about the community.

This updated version of the comprehensive plan will address the preservation of the country atmosphere of Lucas by addressing the growth and future needs relating to population, housing, land use, economic development, parks, streets, drainage, water, thoroughfares, and capital improvements.

## LOCATION

Lucas is located in Collin County just northeast of the Dallas-Fort Worth Metroplex, 30 miles north of downtown Dallas. The City is positioned 10 miles east of the DART Parker Road Station, 30 miles north of the Love Field Airport, and 40 miles east of the Dallas-Fort Worth International Airport. Lucas is bordered by the City of Allen to the west, the City of Parker to the southwest, the City of Wylie to the south, the City of St. Paul to the southeast, Lake Lavon to the east, and the City of Fairview to the northwest as shown in figures 1.1 and 1.2.

The population is estimated at 6,875 in 2016 and contains a total land area of 9.85 acres.



The City has experienced significant growth in recent years as a result of its unique features including:

- Appealing rural atmosphere
- Animal friendly neighborhoods
- Exceptional educational systems
- Proximity to services and shopping
- Low crime rate
- High quality housing
- Large lot sizes
- Proximity to Lake Lavon

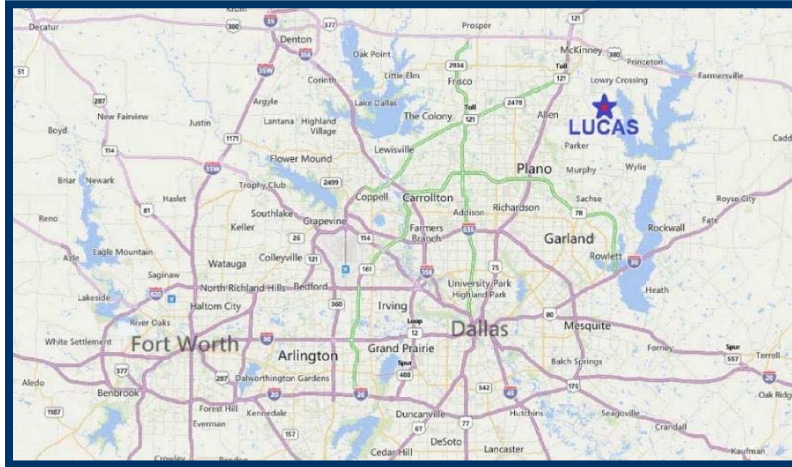


Figure 1.1—City of Lucas and Dallas/Fort Worth Metroplex

The City of Lucas' location, outside the pressures and restrictions of intense urban life, combined with its convenient position relative to local and regional economic and recreational centers, makes the City a stable and attractive community.

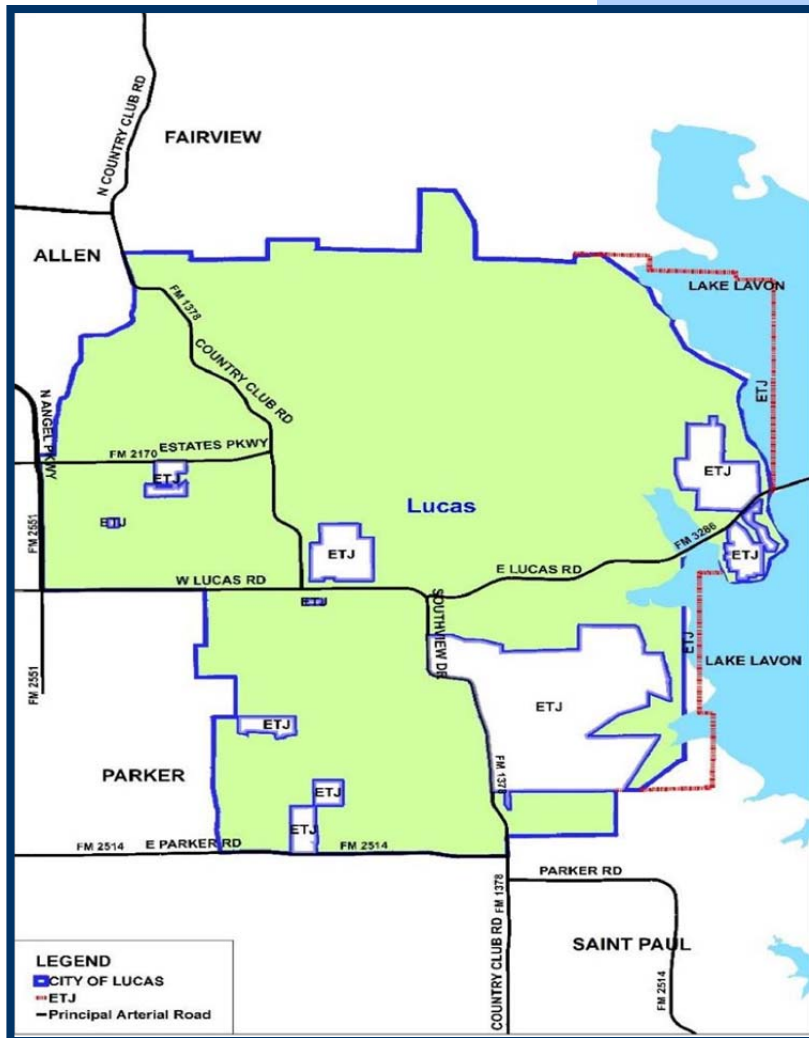


Figure 1.2—City of Lucas, Texas



# POPULATION



One of the most important parameters of the planning process is the analysis and projection of the population. The purpose of projecting population is to provide a general scale for future development which is compatible with the prospects and the potentials of the city.

Population growth is primarily driven by construction of new housing and the annexation of land.

The population estimates reported in this plan are based on the US Census Bureau, the North Central Texas Council of Governments Databases on Demographics, and other State agencies. Over the next 25 years the North Central Texas population is expected to grow by 5 million people. It is assumed the City of Lucas will also experience significant growth if the local and regional economies remain stable.

After estimating the size and density of the future population, it becomes possible to determine the future level of demand for facilities, and to develop indices for issues which typically confront those persons who are actively involved in making decisions related to the planning process.

Projected population demand is the rational basis for projecting infrastructure needs, and establishing the timing of capital expenditures.

## POPULATION TRENDS

The population of Lucas has increased dramatically from 540 in 1970 to 6,875 in 2016. This represents an annual growth rate of 5.69%. This is a reflection of the desire of many people to live in a rural or "small town" environment while keeping close to major urban centers. Continued population growth in Lucas is supported by forecast data for Collin County. The population of Collin County is expected to increase by almost 54 percent by 2035. The age composition of the Lucas population provides a profile, illustrating when and where the greatest need for various types of public expenditures will be required in order to meet citizen demand.

## POPULATION PROJECTIONS

Population projections provide the most basic planning assumptions required for strategically meeting future public needs. Six significant assumptions specific to Lucas help form the basis from which to project the populations, and are listed below:

1. The density and character of development in Lucas will not change appreciably.
2. Lucas will experience in-migration from larger urban areas causing the local population to increase.



3. The average household size will remain 3.22 persons per household.
4. Population can be estimated based on the number of existing houses; the calculation of potential number of houses that can be built on developable land based on projected future land use, and subdivision of land tracts.
5. The City of Lucas is estimated to be built out in 2030. Based upon all the foregoing assumptions, future population projections for both Lucas and the area within the extra-territorial jurisdiction (ETJ) are shown in table 2.1 and can be illustrated in figure 2.2.
6. Whether the projected population occurs five years early or five years later, the city will require the same number of facilities for the projected number of people.

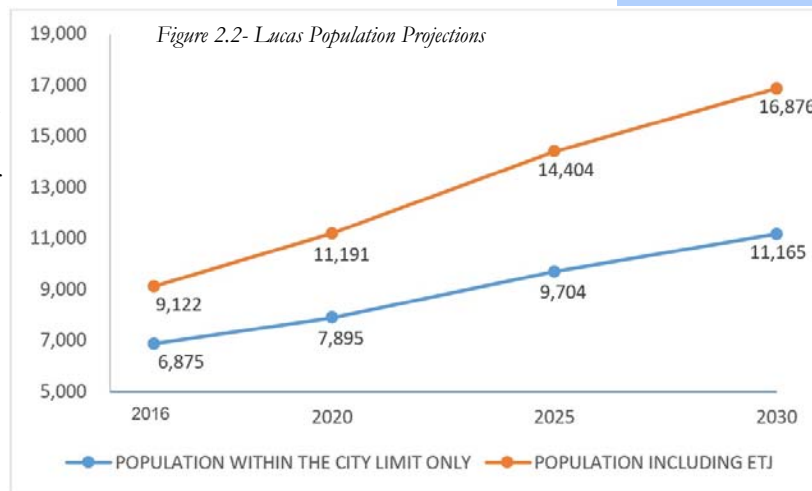
YEAR	POPULATION (CITY LIMITS ONLY)	PERCENT GROWTH	ANNUAL GROWTH RATE	POPULATION (ETJ)	POPULATION (CITY LIMITS & ETJ)	PERCENT GROWTH	ANNUAL GROWTH RATE
2016	6,875	N/A	N/A	2,247	9,122	N/A	N/A
2020	7,895	14.8%	3.5%	3,296	11,191	22.7%	5.2%
2025	9,704	22.9%	4.2%	4,700	14,404	28.7%	5.2%
2030	11,165	15.1%	2.8%	5,711	16,876	17.2%	3.2%

*Table 2.1- City of Lucas Population Projections*

The anticipated population growth will place additional burdens on the City’s infrastructure and resources:

- Streets
- Water and wastewater system (waste water serves non-residential uses only)
- Parks and recreational facilities
- Environmental, educational, safety and health services

Lucas should set goals for both the desired population levels and facilities necessary to accommodate the resulting demands. Most of these topics will be discussed in the following chapters of this Comprehensive Plan.



# HOUSING

## INTRODUCTION

There are four generally recognized determinants of the level of effective demand for housing units as follow:

1. The physical sources of housing demand which includes the number of type of family units in an area and the need for replacing existing units.
2. The level of wealth in an area and the distribution of that income.
3. Mortgage rates.
4. The supply price of housing which is the cost of providing the residents of an area with appropriate housing facilities.

The complex interaction of these four considerations works to determine whether or not adequate housing of the appropriate types is available to the residents of Lucas.

## EXISTING HOUSING ANALYSIS

As of June 1, 2016 there were 2111 single family housing units in Lucas. There are an additional 24 other forms of housing units in Lucas which could be classified as housing in a non- or semi-permanent structure. Within the Lucas extra territorial jurisdiction there are 697 units, bringing the total housing in Lucas and the ETJ to 2,832 units.

- Single family 2111 units
- Semi or non-permanent housing 24 units
- Single family 697 units
- Total 2,832 units

## HOUSING GOALS AND OBJECTIVES

Although Lucas will add new dwelling units through new construction, existing units must be adequately maintained in order to meet the local housing demand and foster a stable housing environment. It should be assumed that all housing and properties within the community are maintained in a reasonable (or sound), safe and sanitary condition for its useful life. To enable the city to direct its efforts in develop housing with the highest and best use, the following specific goals and objectives should be followed:

### GOAL 1.

Encourage suitable development of land with adequate lot sizes, paved streets and utility lines.

#### Objectives:

- Establish and maintain subdivision ordinances to ensure that new infrastructure meets or exceeds minimum city requirements.
- Encourage high-quality construction through the continued enforcement of recognized building codes.



- Alleviate maintenance and service issues by upgrading existing infrastructure (water, streets and drainage) to meet or exceed minimum acceptable standards.

### GOAL 2.

A sufficient choice of adequate housing should be provided to meet the needs of individuals.

#### Objectives:

- Zone land to promote long-term neighborhood stability.
- Maintain moderate density housing in suitable locations on the periphery of the city.

## FUTURE HOUSING REQUIREMENTS

To provide an indication of the future demand for housing in Lucas, it is necessary to project the number of housing units which will be needed. These projections are based upon the assumption that the average household size would remain at 3.22 persons during the planning period. Allowing for a five percent vacancy rate, and reflecting anticipated future population levels, the future total housing needs for Lucas are estimated and illustrated in Figure 3.1. Lucas should encourage the maintenance of, and/or rehabilitation of older homes so they remain habitable over the planning period and beyond. As the population ages, provision must be considered for proper accessibility for an increasing elderly and disabled population. Attention to building design and adaptability can achieve a solution to this challenge.

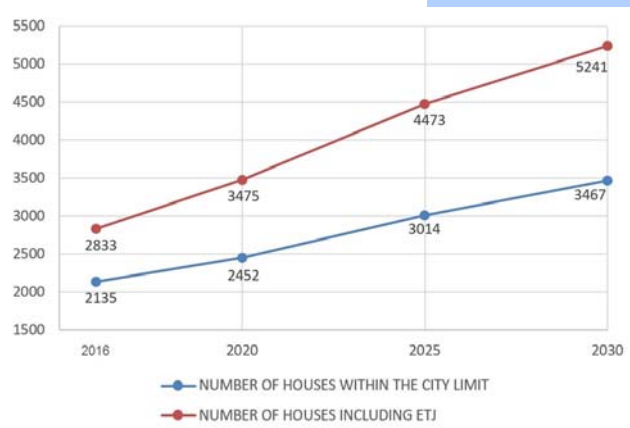


Figure 3.1– Projected number of housing unit needs for City of Lucas

## HOUSING ACTIONS

Housing needs and some of the potential housing issues within the City have been identified above. The prevention of housing issues in Lucas will require the development and implementation of an effective housing program. Although this will be an ongoing process, specific actions for the next five years have been developed. These actions, all of which will be of negligible cost to the city, are listed below.

#### Action Items:

1. Beginning with those units in worst condition, complete the rehabilitation of housing units in the City by using one or a combination of the following methods:
  - Strict Code Enforcement of the City’s adopted ordinances.
  - Establish or coordinate with existing benevolent groups such as Habitat for Humanity to help those unable to help themselves.
2. Review current zoning ordinance for compliance with development issues within the city.



# LAND USE

## INTRODUCTION

The purpose of the land use analysis is to provide both statistical and graphical information concerning the various types, amount and intensity of land use within Lucas and identify problems which have arisen as a result of conflicting land use patterns or inappropriate land uses. An updated future land use plan can then be produced enabling Lucas to better guide land development in a manner which reflects local goals and objectives.

The total corporate limits of Lucas comprise 9,855 acres of land while the actual developed area of the City covers 7,285 acres. The extraterritorial jurisdiction (ETJ) covers an additional 1922 acres. Figure 4.1 at the end of this chapter displays an aerial illustration of the City of Lucas and the extraterritorial (ETJ) pockets within the city.

## ANALYSIS OF EXISTING LAND USE



### Residential Land Use

Residential land use consists of 5,582 acres of single family land use and 43 acres of manufactured homes land use, or 56 percent of the gross land area of Lucas. This is the most important land use classification in Lucas. Most single-family development lies in the central portions of Lucas, taking advantage of gentle topography which is out of floodplain areas. Although there are some scattered commercial uses intermingled with single-family uses,

most neighborhoods contend only with vacant lots as the only other use present. Manufactured homes account for 0.6 percent of total developed land area.

### Commercial Land Use

Commercial land use covers 505 acres or 5 percent of the gross land area of Lucas. Access to public sewer facilities is allowed only in areas designated by metes and bounds that have been zoned for commercial use. There are six independent school districts in City of Lucas and one private school:

- McKinney ISD
- Princeton ISD
- Allen ISD
- Lovejoy ISD
- Plano ISD
- Wylie ISD
- Lucas Christian Academy

Most of the remaining commercial land uses within the city are in close proximity to the major roadway system. At present, there appears to be minimal conflict between commercial land uses and adjacent land uses.

### **Industrial Land Use - (These parcels are zoned LI light industrial)**

Industrial land use covers 7 acres or 0.08 percent gross land area of the City and consists of light industrial uses along the north side of West Lucas Road. These light industrial uses have potential for conflict with adjacent future residential uses.

### **Streets and Rights-of-Way**

Land utilized for streets and utilities comprises 965 acres, or 9.79 percent of the gross land area of Lucas. Streets do not pose any conflicts with other land uses in Lucas as these uses tend to be compatible.

### **Public/Semi-Public Land Use**

Public and semi-public land use within Lucas covers 29 acres, or 0.30 percent of the gross land area. Most of this is utilized for City facilities, cemeteries and public utilities such as water towers.

### **Parks Land Use**

Parks land use covers 153 acres, or 1.55 percent of the gross land area of the City. This includes three neighborhood parks, the Lucas Community Park and two parks located adjacent to Lake Lavon. In general, parks are compatible with their surrounding land uses.

### **Agricultural and Open Space Land Use**

The remaining land use types, including agricultural and open spaces, are located randomly throughout the City. Agricultural and Open Spaces cover 2,570 acres or 26.08 percent of gross land in City of Lucas. In addition to land located in flood plain areas, this also includes those areas which are usually subdivided into lots with access to potable water facilities and paved streets or where surrounding development densities make agriculture or ranching less practical.



## **SOCIO-ECONOMIC AND MAN-MADE INFLUENCES AFFECTING LAND USE**

An analysis of the existing development activity in Lucas should examine the following basic influences: population growth, housing availability, public utilities and facilities, transportation, and development constraints posed by both the natural and man-made environment. This can then be used to better determine the influences which will define future land development in the City.



## Housing

Lucas is comprised of only single-family housing units. With a steady growth in population, it is anticipated that the demand for well-constructed and well-maintained housing will continue to increase. Therefore, more units will need to be built to provide adequate and safe housing for the growing population. As the City's development approaches a "built out" condition, the increase in tax revenue due to new housing should be expected to diminish.

## Infrastructure

Future growth and appropriate levels of service depends upon the City's water supply and distribution system, street system, and drainage system at suitable capacities and operational levels to meet demands. Various elements of Lucas' water, streets, and drainage systems will need improvement in the coming years.

## Public/Semi-Public Facilities

Public facilities in Lucas include a City Hall, community center, parks, cemeteries, fire station and utility sites. As the future population increases, there will be a corresponding increase in the demand for these public facilities.

## OTHER SERVICES

As the population increases, there will be an increase in the local demand for retail and/or consumer services. The City of Lucas has approximately 5.85 acres of commercial land use per 100 inhabitants (excluding the schools). To avoid conflict with adjacent residential uses and minimize negative traffic impacts, future commercial uses should generally continue to be confined to peripheral areas of the city.

## ETJ AND FUTURE ANNEXATIONS

The extraterritorial jurisdiction of Lucas includes:

- Land adjacent to Lake Lavon.
- A municipal utility district in the southeast corner of the City
- Several pockets of land scattered throughout the City as well as adjacent to it

Figure 4.3 depicts the current ETJ. Additional development is anticipated to occur in the ETJ.



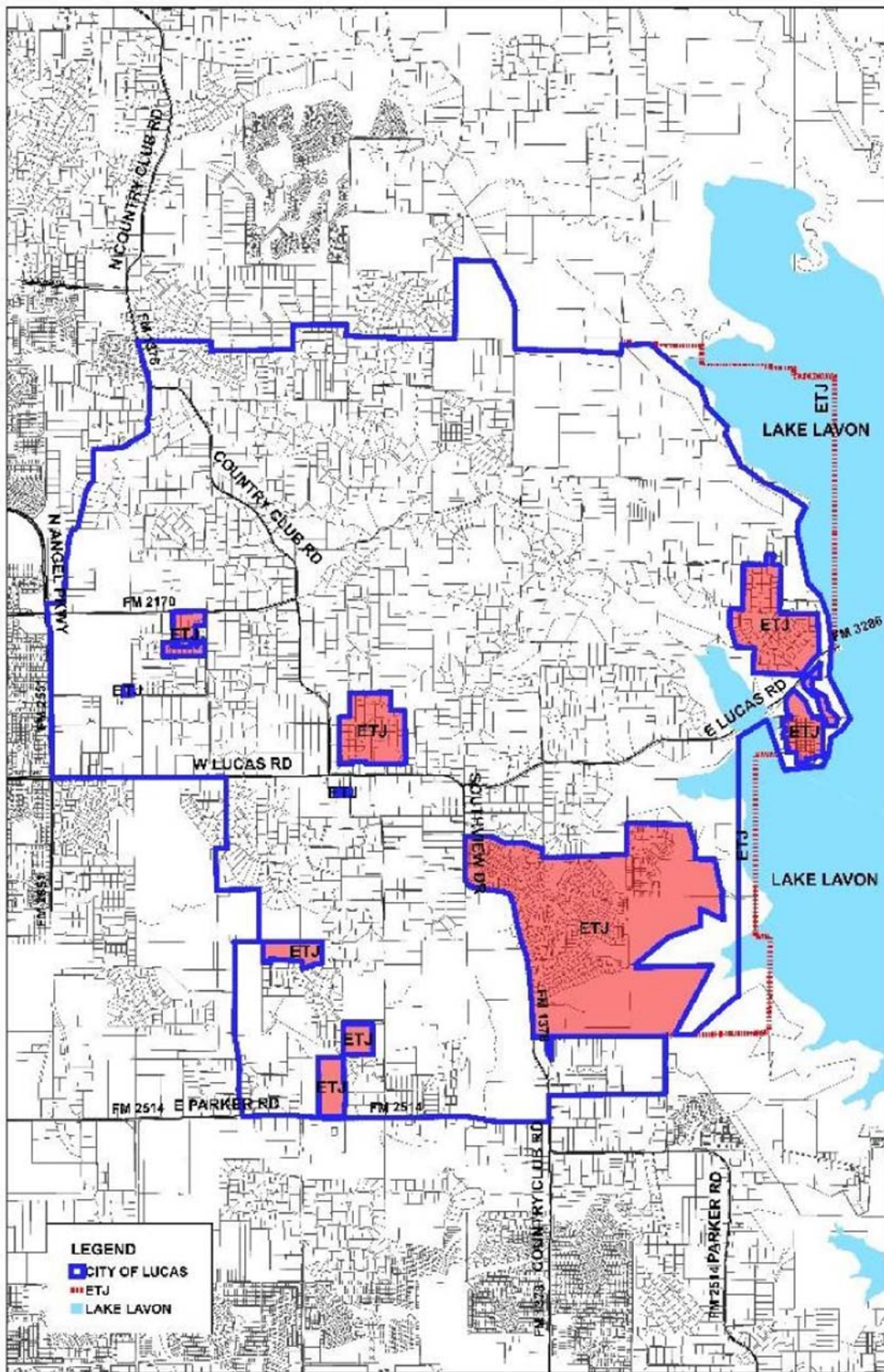


Figure 4.3 - City Limits and Extraterritorial jurisdictions (ETJ)



The composition of the ETJ area is presented in table 4.3 and figure 4.4. Any future large-scale residential development in the ETJ area will most probably occur to the southeast adjacent to Lake Lavon. As opportunities arise, the city should favorably consider annexing those "out areas" currently within the city limits as they become available for annexation. It should be noted that development agreements are in place which preclude some of the ETJ areas from annexation at the time of preparation of this Comprehensive Plan. The available areas for annexation at this time include:

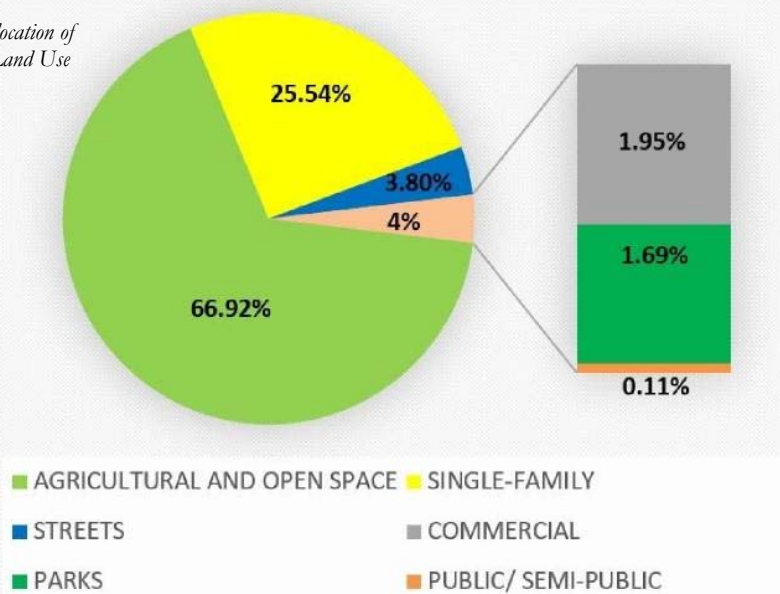
- Claremont Springs Phase 1
- Cimarron
- Edgewood Estates
- Trinity Park

Table 4.3 - Allocation of Existing ETJ Land Uses

LAND USE	ACRES	% OF GROSS
SINGLE-FAMILY	490.88	25.54
COMMERCIAL	37.44	1.95
INDUSTRIAL	0.00	0.00
PARKS	32.39	1.69
PUBLIC/ SEMI-PUBLIC	2.15	0.11
STREETS	73.00	3.80
AGRICULTURAL AND OPEN SPACE	1286.43	66.92
TOTAL	1922.29	100.0

Source: August 2015 land use survey using aerial photography

Figure 4.4 - Allocation of Existing ETJ Land Use



## ZONING AND SUBDIVISION REGULATIONS

Lucas has previously adopted zoning and subdivision ordinances. The subdivision ordinance provides the City with control over development practices within both the City and the ETJ. The zoning ordinance is used to regulate land uses that can occur within the city limits. The continued monitoring of these ordinances is important to ensure future development activities are consistent with the City's development objectives.

## LAND USE GOALS AND OBJECTIVES

The goal of Lucas is to optimize land use in order to increase the quality of life of the residents. Lucas' land use goals are to avoid traffic congestion, inadequate or obsolete utilities or services and the location of incompatible land uses adjacent to one another. The proper planning and use of land will result in well-ordered land uses and development patterns as the City progresses.

## LOCAL GOALS AND OBJECTIVES AFFECTING DEVELOPMENT

### GOAL 1.

Develop the community in a manner which preserves and maintains property values and is consistent with the City's ability to serve existing and future development.

#### Objectives:

- Plan for reasonable demand with regard to water, street circulation and neighborhood connectors.
- Maintain the present rural atmosphere with a majority of large-lot residential development.

### GOAL 2.

Preserve the residential and rural small-town atmosphere of the community while encouraging some quality small-scale economic development.

#### Objectives:

Utilize the "Survey of selected business" as a guideline for attracting business to the community.

- Ensure that commercial and other "high activity" uses are adjacent to designated neighborhood connectors to maintain acceptable fire/emergency response times.
- Preserve peripheral areas to the south and west for future limited commercial and moderate density residential development.
- Regularly review, update (if necessary) and enforce the zoning and subdivision ordinances to minimize the intrusion of incompatible land uses.
- Promote the general health and safety of the residents of the community.



It is important to understand that the Land Use Plan for Lucas is intended to serve as a general guide for the future development of the city. It should be considered flexible in nature, rather than a rigid blueprint for future land use. The population, housing, infrastructure and land use data contained in sections of this Comprehensive Plan serve to establish the determinants for land use projections.

## FUTURE LAND USE

### Land Use Planning Principles and Process

The following principles are considered applicable to the proper designation of land for residential use:

- Residential land should be well drained and free from danger of floods.
- Residential land should be readily accessible from, but not necessarily facing, arterial or collector streets.
- Residential land should be free from the danger of encroaching incompatible land uses.
- Residences should be able to access community facilities such as parks, schools, playgrounds and commercial facilities serving everyday needs.

Factors relating to the designation of land for commercial land uses include:

- Commercial areas must be located to maximize the use of major neighborhood connectors while minimizing excessive traffic impacts on residential roads and neighborhoods.
- Commercial areas should be limited and compact.
- Commercial areas must allow for safe automobile/pedestrian access and circulation. (Commercial areas require sidewalks per our adopted regulations)
- Commercial areas must be designed to avoid blighting effects on adjacent residential land and must be kept from encroaching on other sensitive land uses.

The proposed locations for commercial activities on the periphery of the community is acceptable both in terms of decreasing traffic stresses on central area roadways while providing accessibility to area customers. Commercial areas, if properly developed with landscaping programs and a developed access route to remove consumer traffic from through traffic, can be an asset to a community. It is with these factors in mind that the following principles were established for the planning of commercial areas:

- Commercial land uses should be formed into compact developments, avoiding "strip commercial" growth.
- Avoid the occurrence of scattered commercial development along major highways. Commercial activities should be consolidated into a few well organized areas to take maximum advantage of utilities and services and to promote the economic well-being of the total business community.



- Adequate off-street parking and access should be utilized for commercial areas to decrease potential congestion and safety hazards.
- Avoid commercial growth on both sides of heavily traveled highways.

As the City of Lucas grows, future fire stations and emergency sites should be located to minimize the response time in accordance to National Fire Protection Association (NFPA) standards.

In order to formulate, adopt and implement a plan that accomplishes the foregoing overall goals and objectives, it is important to incorporate certain basic planning principles and processes into the local future land use planning effort. The Future Land Use Plan expresses projections that are based on sound planning principles, recognizing and supporting existing land uses, community facilities and physical features.

The plan for Lucas suggests that certain areas be reserved and developed for various land uses. Selecting the pattern and distribution of future land use is best accomplished through:

1. The analysis of existing land use characteristics
2. The effects of existing infrastructure
3. The location of existing neighborhood connectors
4. The application of recognized planning principles

These characteristics and principles establish a process by which to judge the most optimum and best land use based on local and community-wide standards. There are two advantages of going through such a process. First, it results in a land use plan for the City as represented by the Future Land Use Map. The Future Land Use Map can be used to assure that individual decisions follow a comprehensive pattern. It also helps in the sensitive but necessary evaluation of change with respect to public and private benefits. Second, the establishment of this planning process provides the City with a method of logically making subsequent land use decisions. It is important to reiterate that the Future Land Use Plan does not attempt to set the specific use for each and every parcel in the planning area.

## RECOMMENDED ASSIGNMENT OF LAND USES

### Residential Land Use Requirements

The assignment of land uses is then based upon the goals, objectives and planning principles previously stated. It is anticipated that new residential uses will be built as (1) new subdivisions close to or within current city limits, as (2) larger lot development in sparsely populated areas adjacent to Lake Lavon and the ETJs, and as (3) in-fill development/redevelopment. As one moves further west and south, residential densities transition from larger lots of two or more acres, to lots of one and one-half acres, and one acre. By establishing this hierarchy of development density, will result in a more cohesive land use throughout the City.





### **Commercial Land Use Requirements**

Future commercial land use allocations in Lucas should focus on peripheral locations to minimize traffic impacts on residential areas, reduce the potential for incompatible land uses, and minimize subsequent potential adverse effects. Drive will serve local needs with limited impacts to commuter and passerby highway traffic.

### **Industrial Land Use Requirements**

No provision is made for future industrial development in Lucas. There are no perceived benefits to the City in preserving areas for future industrial development.

### **Parks Requirements**

With respect to parks and open space, local opportunities for residents exist in Lucas. Expanded recreation options can be a benefit if operating and maintenance costs are held to manageable levels. Because of its limited tax base, Lucas should only expand park and open space facilities where and to the extent they are deemed needed.

## **RECOMMENDED LAND USE PLAN**

The future land use plan which has been developed for Lucas is included on figure 4.5. A current delineation of existing conditions in both graphic and tabular form will not only allow for an up-to-date analysis of needs but will also allow for a measurement of success in achieving the Plan. Further, the Future Land Use Map should be used as a guide to keep incremental changes of the community in perspective. The individual decisions which actually shape the community, however, should be evaluated with respect to the characteristics and principles discussed throughout this document. Exceptions to this plan can be made and can be acceptable on a case by case basis where the greater good of the community is enhanced.



# ECONOMIC DEVELOPMENT

## INTRODUCTION

Economic Development can be defined as the basis by which a community maximizes or preserves the quality of life for its citizens. Economic development is a complex process vital to a community's pursuit of greater prosperity. Successful community development is a result of a well-executed economic development process that is given high priority by local leadership, and supported by residents. Moreover, economic development provides local employment and investment opportunities that generate these revenues. These revenues pay for public improvements, services, and facilities, as well as offset the increases in property taxes. However, for the City of Lucas, it is important to understand that economic development is only supported when it sustains the overall livability of Lucas. What does the term livability mean with regard to city planning? Many intangibles make a city livable, such as a sense of community, a strong sense of place in particular areas, city pride, and the friendliness of neighbors. However, there are also tangible aspects which can nurture livability. Therefore, the aspects of livability that this chapter will embrace include:

- Creation of a trail network that connects neighborhoods;
- Creation of neighborhood identity, and areas with a strong “sense of place”;
- Aesthetic quality of the neighborhoods and community;
- Proximity to open space and recreational opportunities;
- Proximity and availability of other community services such as high quality schools;
- Ease of access to and quality of retail and restaurants;
- Traffic flow and managing the impact of development and the associated increase in traffic on neighborhoods;
- Availability of the desired type, style, and cost of housing;
- Proximity to employment opportunities;
- Sustainability in buildings and development pattern; and
- Accessibility to natural areas

## DEVELOPMENT CHARACTERISTICS AND POLICIES

### Regional Context

Many aspects of regional development and demographic trends have a significant influence on economic potential. State, national, and international economics influence the regional and local economic potential, as well as contribute to the underlying assumptions for conducting regional and local economic analysis.

Lucas, with a current population estimate of 6,875 persons in 2016, contains a total land area of approximately 9,855 acres. An additional 1,922 acres is located within the extra-



territorial jurisdiction. The city's location in Collin County places it on the northeastern edge of the Dallas/Fort Worth Metroplex, convenient to most major employment centers.

### **Physical Growth Patterns**

The Future Land Use Plan (Figure 4.5) depicts future land development characteristics for Lucas. Lucas is a traditional bedroom community with primarily large single-family lots and open spaces located through the core of the city with commercial located on the periphery. Residential is served by on-site sewerage facilities (OSSF), which requires a minimum of one acre for a residential home site. Commercial is served by the city's sewer system. Commercial development is planned in two primary areas of the City. Both of these areas have been planned and have all necessary services installed for development. Unlike residential development, these areas for commercial development have access to sanitary sewer infrastructure installed with capacity available to meet future demand for these services.

In the past, the majority of commercial establishments consisted of small retail providers catering generally to local trade. Larger regional retail developments have tended to locate in adjacent, larger communities such as Allen, Plano and McKinney. However, in recent years major commercial growth has occurred along the western city limit boundary near the City of Allen, between West Lucas Road and Estates Parkway. In addition to development of commercial establishments near the western city limit, future commercial growth is anticipated near the southern city limit boundary in an area west of Southview Drive. Since Lucas foresees itself in the future as a community of primarily low density residential uses, the City will focus on appropriate, smaller scale commercial development, which will generate an acceptable level of sales tax revenues while effectively serving the needs of the local population base.

### **Local Regulations and Development Policies**

The local regulations, which could have the greatest potential to impact economic development, are reflected in the City's subdivision and zoning ordinances. Both ordinances must effectively direct development activities in a manner which both reflects local goals and objectives while recognizing realistic development standards. These regulations are not intended to discourage growth but rather to ensure that any new development provides for quality facilities and services.

### **Economic Base Study**

The majority of all workers living in Lucas tend to be employed in occupations which require a higher or higher/moderate skill level. According to the US Census Bureau estimates for 2009-2013, the median household income in City of Lucas is \$101,636, which is almost twice the \$51,900 median household for the State of Texas.



## Utility Services

The City of Lucas is the retail provider of water for its residents and businesses and its water wholesaler is the North Texas Municipal Water District. Details regarding the water system are described in Chapter 8 (Water) of this planning document. TXU and Grayson/Collin Electric provide electrical distribution. Natural gas, supplied by CoServe, is available in limited areas of the city.

## Industrial Sites

Presently, there is no industrial development in Lucas. The high land costs in the area, compared to the Dallas/Fort Worth Metroplex, the zoning, the limited sanitary sewer system and the emphasis on Lucas remaining a low density residential community, are factors which make future industrial development in Lucas unlikely. The proximity of Lucas to major employment centers makes the issue of local job creation less important. Residential development is and will continue to be the most dominant land use along with minor ancillary development.

## Commercial Sites

Lucas has a total of 505 acres of commercial development. By excluding land reserved for schools, 375 acres are directly reserved for commercial land uses. Most future commercial sites will be located on the periphery of the city to minimize intrusive traffic volumes on interior neighborhoods. Details are provided in the Land Use Section of this planning document.

## Community Assessment

It is important to note there is a critical link between economic development and comprehensive planning. Economic development is impacted by:

- Land use;
- Zoning;
- Accessibility to utilities;
- Access via transportation systems and infrastructure; and
- Demographics..

Characteristics of the City of Lucas include:

1. A property tax rate lower than the average for cities in Collin County and for the cities in DFW region. (\$0.320661 in 2015)
2. The city has traditionally had a conservative City Council that places an emphasis on providing a balance between necessary services with low taxes.
3. Skilled labor represents a high percentage of the Lucas work force.
4. Commercial land availability along FM 2551 and the southeast quadrant of the City (FM1378 and Parker Road).
5. Vacant land for additional housing.
6. Sewer service is available in commercially zoned areas.
7. Land prices are higher than region or state average.



It is important for Lucas to realize its potentials and liabilities in terms of future economic development. Because of its location, Lucas has more potential for developing as a quality residential area than it does in becoming a significant economic center. However, it is important for Lucas to develop some commercial areas to meet the needs of residents.

While it is possible to operate primarily upon property taxes, doing so may require undesirable constraints on future spending. It is important Lucas not become dependent solely upon property taxes as the only revenue source for local government operations. The City of Lucas needs a healthy mix of ad valorem and sales tax revenue. Ad valorem taxes should be used generally for day-to-day operations while sales tax revenue should be used for capital projects.

Decision regarding business location will come from the business owner and his or her willingness to invest in a particular site; however, the city's development environment as conveyed through its development codes will have a major impact on where and what type of business activity takes place.

## **ECONOMIC DEVELOPMENT PLAN**

Economic development in Lucas should have two major thrusts: (1) maintain appropriate housing development and (2) attract businesses that are appropriate for the City. Commercial development has benefitted the City with increased revenue. Balancing the financial well-being of the City and its ability to provide essential services with the citizens' desire to maintain the features and attributes of the City is paramount. Therefore, it is important to emphasize citizen feedback during the public meeting regarding economic development.

## **HOUSING SUPPLY**

The demand for quality, upscale housing in Lucas is expected to continue. According to the findings in Chapter Three - Housing, an estimated 3,911 housing units will be needed by 2030. To meet this demand will require a joint effort of lenders, real estate brokers and builders/developers. Lucas should focus on quality housing to ensure that values are maintained and the city continues as desirable place to live.

## **ATTRACTING NEW BUSINESSES**

Attracting appropriate new businesses to Lucas will increase tax revenues and fund city-provided services. There is attractive land available for new businesses in western and southern city limit boundaries with infrastructure in place or in the planning stages. The western area is accessible through three arterial roadways including West Lucas Road, Estates Parkway and Angel Parkway. The area in southern part of city is similarly accessible through two major arterial roadways East Parker Road and Southview Drive.



The citizen's preferable commercial businesses survey conducted by the City in 2015 should be utilized to attract businesses desired by citizens of Lucas. The top five responses from the survey include:

- Sit Down Family Restaurant
- Farmers Market
- Garden/Nursery
- Grocery Store
- Feed Store

These types of retail establishments typically generate sales tax revenues. It is anticipated that planning for the continued development of similar businesses in the western and southern part of the city in commercial zoning areas will continue.

## **ECONOMIC DEVELOPMENT GOALS AND OBJECTIVES**

Based on input from Lucas citizens, Boards and Commissions, City Council and staff, the following economic development goals and implementation strategies are recommended:

### **GOAL 1:**

Support business endeavors that are in harmony with the rural characteristics and distinctive environment.

### **GOAL 2:**

Improve and maintain the infrastructure to support growth in the tax base and sustain a sound financial future through the adoption and implementation of a capital improvement program.

### **GOAL 3:**

Attract businesses to Lucas that serve the local population and promote the livability and a high quality of life for our citizens.



# PARKS, RECREATION AND OPEN SPACE

## INTRODUCTION PARKS, OPEN SPACE, AND TRAILS



The amount and quality of parks and open space within a community are often cited as important elements of local quality of life. Lucas has recognized this fact through an adopted Park Plan and a park dedication ordinance. Lucas is a unique community with large lots and open spaces naturally throughout the city. The city's entire Eastern boundary is located on the shores of Lake Lavon, with natural waterways through the city for storm water run-off.

Due to the unique features of Lucas and the large lots and natural open spaces, parks are not as important to the city as they are to surrounding communities. With input from the community, Boards, council, and staff it was decided that existing parks with the exception of the future potential to expand existing facilities especially at the community park located next to city hall, that we have adequate parks facilities. The city should concentrate on expanding existing trails equestrian and hiking trails adjacent to the city on US Army Corps of Engineering property throughout the city.

## COMMUNITY COMPOSITION

The City of Lucas contains a total land area of approximately 9,856 acres. Approximately 74 percent (about 7,285 acres) of the land within the existing City is developed, while the remaining acreage is vacant or being used for some agricultural related purpose. Lucas currently has six parks (153 acres) utilized as parkland and has no planned or designated open space system. In addition the City of Lucas is located immediately adjacent to Lake Lavon, which provides opportunities for water based recreational activities, trails and open spaces.

## PREVIOUS PARKS AND OPEN SPACE STUDIES

The City of Lucas historically has had common visions for development of Parks & Open Space. Previous studies performed date back to 2001 when community planning involved City officials interacting with the citizens in the form of Town Hall meetings and questionnaires intended to gather preferences and opinions about parks and open space in the City. Preferences and opinions came from a sample of the population voicing a variety of choices. A 2001 study entitled "Lucas Parks and Open Space Master Plan" presented a detailed analysis of the park system, open spaces, possible programs and recreational opportunities available,



and the detailed history of lands in the City. The study also painted an overall picture of the City's situation regarding these issues, described a strategy in which to develop a parks and open space master plan, and established goals and objectives outlining means to implement the proposed plan. Additional study was performed as a part of the 2004 City of Lucas Comprehensive plan which included an evaluation of the parks and recreational opportunities in the City and the current opportunities available and existing facilities available.

In 2015, the City hosted several Town Hall meetings to provide forum to receive feedback from citizens and to address the parks, recreation, and open space needs. The town hall meetings, previous study, and ongoing changes to parks and recreation in the region will serve as a backdrop in describing the current opportunities as they exist today.

### **EXISTING PARKS AND OPEN SPACE**

Over the years, the City of Lucas has developed 4 parks and preserved open space in accordance with community planning efforts. The existing parks and open space include Brockdale and Highland Park currently operated by the Army Corps of engineers, and one private park located in the Stonegate sub-division making a total of 6 parks in the city and they are described and evaluated as follows.

#### **BROCKDALE PARK**

Brockdale Park was established in 2005 and is located at east edge of City of Lucas immediately next to Lake Lavon. Brockdale Park is 127 acres and has several amenities that have been developed and includes The Blackland Prairie Raptor Center that is located in the middle section of the park. This center is a nonprofit, rehabilitation and conservation education organization. The mission of this organization is to preserve the environment through public education and conservation of birds of prey and wildlife in their natural habitat.

#### **KENNETH R. LEWIS PARK**

Kenneth R. Lewis Park is located adjacent to FM 1378 (Southview Dr.), near the southern side of the City. The park is approximately 5 acres and offers baseball/softball field and soccer field. About two thirds of the park is open space and undeveloped for use with other activities.

#### **LUCAS COMMUNITY PARK AT CITY HALL**

The Lucas Community Park at City Hall is directly adjacent to the southern side of City Hall Parking Lot. The park is approximately 3 acres and offers a 5-foot wide concrete sidewalk that circulates the park and a pavilion for picnics and barbeques for the City residents of Lucas. A large playground including multiple slides and climbing areas. The park also boasts a community center with





rooms available to residents at no cost. The parking area provided for the City Hall can be also utilized for the community park.

### **HIGHLAND PARK**

Highland Park is located at Northeast edge of the city just off Snider Lane. This park is approximately 59 acres and has a minimal of services developed at the park.

Highland Park Provides a boat ramp at the north end of the park for boating and fishing activities on Lake Lavon. The ramp is concrete with ample parking for trailers and vehicles. Entrance to the boat ramp area is via Highland Park Road. Available facilities at this park include the following, a parking area, boat ramp, and restrooms.

As with Brockdale Park, the Trinity Trail passes through the Highland Park. There is a trailhead existing at this park that serves as a point for riders to unload and load their horses with an entrance area on Highland Park Road. The Trinity trail continues north past the limit of Highland Park to the north end of City of Lucas Limit near the North Texas Municipal Water District Treatment Plant as previously discussed. Available facilities at the trailhead existing in Highland Park include the followings. Loading/unloading area, restroom facility with ADA considerations, one pavilion, and a watering place for horses

### **FOREST CREEK NEIGHBORHOOD PARK**

Forest Creek Neighborhood Park is located at North of City of Lucas next to Orchard Gap Lane. The Forest Creek Neighborhood Park is a small 2 acre park with several playgrounds and a soccer field. Access to the park from Country Club Road is via Orchard Gap Lane off Norfolk Lane. Facilities available at this park includes a traditional neighborhood playground and open space.

### **STONE GATE PARK**

Stone Gate Park is a private park located on north side of the city in the Stone Gate Neighborhood and is only accessible to residents of that neighborhood. This park is a very small neighborhood park occupying less than 1 acre next to one of the tributaries of White Rock Creek. This park offers a traditional multiuse playground, a small gazebo, picnic tables and a 2-foot wide concrete sidewalk that passes through the park. The sidewalk connects to a concrete trail that continues alongside the tributary of the White Rock Creek.

### **OPEN SPACES AND NATURAL FEATURES**

Open space represents the natural and agricultural through fields, pastures, prairies and woodlands. Public and private objectives may differ in regard to preservation of open spaces. The City's desire to preserve open spaces will depend on achieving common goals with private land owners and the public. The goal of maintaining open space should be continued with continued interaction between the City and land owners to determine common means to achieve these goals.



Other open spaces in Lucas are in the form of:

- Lake Lavon existing flood plain areas
- Creeks and waterways;
- Vacant lands, farm lands, pastures and rights-of-way

All these open spaces can potentially allow for trails and trail connections.

The most important natural feature in Lucas is Lake Lavon and its tributary creeks. Constructed in 1954, the lake is owned and controlled by the U.S. Army Corp of Engineers. There are twenty areas along the lake designated for park use, including Highland Park and Brockdale Park which reside in Lucas. These parks provide water-based recreational opportunities that would otherwise not generally be available in the county.

## EXISTING TRAILS

Currently Trinity Trail along Lake Lavon is the only trail in-use that exists in City of Lucas. The Trinity Trail is situated along Lake Lavon with scenic views of the lake and surrounding landscape. The trail extends to the southeastern City limit of Lucas, and north to a limit shared with North Texas Municipal Water District and the City limit boundary. This unpaved trail is 25.5 miles long and placed on the US Army Corps of Engineers land along the Lake Lavon from East Fork Trail Head in Wylie in the South to the Giant Sycamore Loop to the North. Approximately 11 miles of the Trinity Trail passes through the City of Lucas. This trail enters City of Lucas in the south from Collin Park in St. Paul, and stretches north along the edge of the lake passing through Brockdale Park and Highland Park. This trail is only open to horseback riders and hikers, and the trail is maintained and operated by a group of volunteers named Trinity Trail Preservation Association (TTPA).



## PROPOSED FUTURE TRAILS

Based on input from the citizens, boards, city council, and staff that the future needs of the city are to add additional equestrian/hiking trails. Specifically a trail system linking The Trinity trails on the north side of the city with a trail through the city to reconnect with the trinity trails on the southern end of the city. The trail as proposed would start at a proposed new trail head on E Winingkoff road and end at the Hunt property on the southern end of the city at a proposed future trail head location. The trail should utilize wet lands and natural tree lines whenever possible to create a secluded, shaded trail area.



## GOALS AND OBJECTIVES

The City has continued to work toward achieving the goals and objectives established with previous comprehensive and community planning. By setting the goals and objectives, some results are evident and progress has been made. Recognizing the current achievements and a changed environment and surroundings, a revised set of goals have been outlined that share common themes that resonate with Collin County Open Space Strategic Plan:

### GOAL 1.

Preserve natural environment and native ecosystems.

#### Objectives:

- Conserve and protect ecologically sensitive and naturally beautiful areas, e.g. flood plains along creeks, high points with scenic views toward Lavon Lake, etc.
- Establish and/or enhance green space and natural areas along flood plains, and promote public access to green belt areas with trail systems, e.g. equestrian/hiking trails, etc.
- Encourage and promote water conservation through the use of native plant materials, xeriscape techniques, and other methods.
- Maintain high standards for groundwater quality due to the proximity of Lake Lavon.
- Encourage development types, which minimize impacts upon the community's natural resources and visual appeal.

### GOAL 2.

Provide a comprehensive Trail System Plan to include green belt and open space that is compatible with the environment and compatible with residential neighborhoods.

#### Objectives:

- Continue to revise and adopt comprehensive Parks and Open Space Plan that meets current preferences and reflection of changing environment in the region in 2016.
- Promote trail connections, and ensure greenbelt and open space dedication during the development review process.
- Create pedestrian, and equestrian trails between residential neighborhoods, linear greenbelts, schools, public administrative facilities, and other activity centers, whenever physically and financially possible.
- Continue to adopt and finalize a detailed plan for necessary open space/trail easements to connect existing and future parks, schools, and neighborhoods into an integrated, low maintenance park and recreation system.
- Formulate and adopt policies and ordinances that protect the acquired/donated park land and open space easements.
- Utilize trails, wherever possible, to locally and regionally connect schools, parks and residential areas.



- Design a parks and open space system that is interconnected and multifunctional, which protects important natural, cultural and visual resources while providing appropriate opportunities for recreation.
- Integrate locally planned trails with the "Collin County Regional Master Trail Plan".
- Coordinate planning efforts with those of adjacent cities.

### **GOAL 3.**

Develop and maintain the new Lucas parks and open space system.

#### **Objectives:**

- Determine actual maintenance cost currently needed to maintain existing parks.
- Undertake the necessary effort to determine maintenance costs and capital investment costs associated with acquiring and/or developing new parks and open space.
- Allocate sufficient funding to maintain existing parks, open space and trails.
- Formulate and adopt policies and ordinances that protect existing park facilities, open spaces, and trails.
- Explore cost sharing options such as Federal, TxDOT grants, or "Keep Lucas Beautiful" for fund raising.

## **PLAN AND RECOMMENDATIONS**

The purpose of the plan and recommendations is to provide community direction in a constantly changing environment. Under existing and currently projected conditions and circumstances, the City of Lucas parks, open space and recreational needs will be well satisfied. Few things have so positive an effect on the quality of life in a community as a well-executed plan for a community's parks, open space, trails, and recreational facilities. These recommendations should be helpful to future decision-making as each plan component is gradually considered for implementation or revision.

- Equestrian, hike, and bike trails, greenbelts, parkways or paths should be provided to connect large recreational areas, providing access, scenic views and recreational opportunities.
- Combined municipal and school recreational facilities should be used to serve the community and prevent the construction of redundant facilities. If possible, school recreational areas should include parking, drinking fountains and restrooms and should remain open on weekends and during the summer months.



# STREETS AND DRAINAGE

## STREETS



The livelihood of a community is, to a very large extent, dependent upon convenient and efficient access to nearby major trade centers outside the city, major national travel routes and transportation terminals of national importance outside of the city. It is likewise dependent upon efficient circulation of people within the city. Local streets should provide safe, reliable access to work, schools, shopping, and homes. A street network, therefore, is of vital importance as it ties a community together and links it to the outside world.

The primary function of a street network is the safe and efficient movement of vehicles and people. The street network of any city operates, in effect, as the skeleton of that city, providing access in varying degrees to all properties abutting the network. Roadways and other rights-of-ways occupy more than 13% of the total developed area and allow for circulation between all areas within the City. In addition to moving traffic, streets provide: access to and drainage for abutting properties; open space between buildings; and right-of-way for various utilities. In this way, the street network is a primary factor in the determination of appropriate land use locations.

The condition of the streets in a city are, perhaps, the item most noticed and for which the city receives the most criticism. While the average citizen cannot see breaks in the water lines or know that an area needs more water storage capacity, they are very aware of the condition of the roads, especially ones near their homes. Street problems affect them daily and can be very aggravating.

If adequate facilities are constructed, they can represent the largest single required expenditure of a city, because problems within the street system are costly to repair. The condition of the roads is affected by many factors: the quality of the soil under the road base and pavement surface; the maintenance on the roads needed to seal cracks and prevent water from soaking into the road base; drainage conditions in the area (related to topography); and the ability to afford needed improvements.

In order to repair the roads to proper standards for long term durability, many roads must be raised or lowered to improve drainage, have additional right-of-way dedicated, have improved drainage facilities installed, and have appropriate road materials used in construction. This involves an intensive process. While a large number of the streets in Lucas are in good condition, many are in need of immediate attention. All of the paved roadways consist of asphalt or concrete.

## DRAINAGE

The topography of Lucas consists of both level and rolling terrain. As a result, localized flooding can be a problem, especially where culvert and drainage ditches are obstructed with vegetation or debris.

To help minimize property damage from flooding during periods of intense rainfall, the drainage system for a community must be addressed, sized, and properly maintained. The public has an expectation that no damage will result to property from storm drainage or high water. Many factors directly affect the surface storm drainage immediately adjacent to homes and other structures. Storm drainage facilities include inlets, culverts, bridges, concrete lined channels, natural drainage channels, swales, creeks, rivers, retention and detention ponds, and lakes.

Drainage can have significant effects on structural durability of streets and travel safety. Level ground and poor drainage allows water to collect in some areas, which erodes the road base and causes sections of road to fail, and can also lead to hydroplaning. Currently roadway drainage is primarily handled via open ditches and culverts. The lack of maintenance on some of these ditches has resulted in over growth of trees and other vegetation. This over growth can make roads difficult to drain, and roots can undermine the structural stability of the pavements. As a result the drainage system is discussed in conjunction with the streets system in this chapter.

## STREET SYSTEM ANALYSIS

### General Street Statistics

Within the City, traffic control is achieved primarily with signage. The City does not own, operate, or monitor any traffic signals to control traffic flow. However, the Texas Department of Transportation (TxDOT) controls several traffic signals at these intersections:

- Lucas Road and Southview Drive
- West Lucas Road and Country Club Road
- Country Club Road and Estates Parkway

## STREET CONFIGURATION AND FUNCTIONAL CLASSIFICATION

The roadways in Lucas, which are classified as arterials (Type A and B), neighborhood connectors (Type C), and local streets (Type D). All of these roadways provide different levels of access and serve varying levels of the traffic volumes.

The highest level of roadway in the City of Lucas is the arterial, which carries varying amounts of traffic based upon the number of lanes, with somewhat limited access connections.



On the next level of the spectrum is the neighborhood connector, which carries less traffic for mostly local trips and has a higher level of access associated with it. At the lowest end is the local street, which has direct access to every parcel and carries a more limited volume of traffic. Figure 7.1 shows the relation between different levels of roadways.

Presently, Angel Parkway, Country Club Road, Estates Parkway, Lucas Road, Parker Road, and Southview Drive function as the arterial streets in the City. They allow traffic movement to cities such as Allen, Fairview, McKinney, Parker, Plano, and Wylie..

The neighborhood connectors in the City are Blondy Jhune Road, Brockdale Park Road, East Winningkoff Road, Forest Grove Road, Highland Drive, Ingram Lane, Lewis Lane, Orr Road, Snider Lane, Stinson Road, Winningkoff Road, Snider Lane, and Stinson Road. The remaining streets in the City function as local streets. On local streets through traffic is normally discouraged, On-street parking is normally not permitted throughout Lucas roadways. Figure 7.2 represents street network in City of Lucas.

*Figure 7.1– Roadway Classification and  
Figure 7.2 will be forthcoming*

The geometric configuration of the street system is adequate to meet most current vehicle circulation demands. However, some of the roadways in the City are narrow and have pavement conditions that are unacceptable for current residents. The narrow roadways are inconvenient for two way traffic.

## STREET SYSTEM EVALUATION

Before beginning major improvements to roadways, it is essential that the City have a street condition assessment and management system in place. This system will help to ensure that streets in the existing developed areas of Lucas are improved in a uniform and orderly manner. It is through such a system that completed City projects will provide maximum benefits and will become an integral part of the future City. This should assist in the elimination of duplicate expenditures and assure that possible early obsolescence of improvements can be avoided.

A system inventory, as part of a street management system helps to identify different segments of the roadway system. Condition Evaluation of the roadway segments is the first step in planning improvement. Such a system will provide a continuous evaluation of the street system inventory. It will also help to detect developing problems and determine the proper, corrective action needed. If a road is found to be adequate for its present service, it should be re-evaluated every five to 10 years to determine the trend of changes affecting its future adequacy. A complete evaluation of the roadway system would include all arterials, neighborhood connectors, and local streets in the network.

As part of the condition assessment, an extensive visual evaluation of the pavement surface conditions, drainage, traffic control devices, and environmental conditions was performed. This evaluation included collecting data on the existing conditions and rating evaluated elements for adequacy.

The criteria for the condition assessment are based on criteria which was adapted to the



City needs. Table 7.1 describes the ratings used currently used in the assessment of the neighborhood connectors. Figure 7.3 summarizes the present ratings of the neighborhood connectors in Lucas.

This condition assessment identified neighborhood connectors’ segments that were nearing failure so that the City might be able to repair or perform a total reconstruction. It should be noted that the longer repairs or proper maintenance are deferred, the more expensive it will be to repair a roadway to standard condition.

**EXISTING STREET DEFICIENCIES**

The results of the data from the streets observation and the assessments of the neighborhood connectors combined with data obtained from the City of Lucas were utilized to identify deficiencies in need of remedial action. These are ranked according to priority as in the followings:

1) Street Paving

While a large number of streets in the City are paved, have acceptable pavement width, and are in fair to good condition, many are in need of attention or have never been properly paved. Most of the concrete sections of roadway are in good condition. However, a majority of the asphalt

streets, while seemingly in good driving condition, are demonstrating signs of eminent failure due to inadequate road bases and potentially poor in situ soil condition.

2) Street Drainage

As mentioned earlier, some of the street system has been affected by poor drainage flow. The key areas that need to be addressed are silted and improperly sloped bar ditches along some roadways as well as the silted or undersized culverts. These ditches and culverts allow water to sheet across roadways causing premature damage. Potholes, cracks, and slumped pavement are examples of what can happen when the road base is allowed to erode.

Rating	Description
A Good	Good riding surface with no noticeable wear or obvious defects.
B Acceptable	Good riding surface, but has some minor surface defects and wear indications. Some minor cracking or patch repairs may exist.
C Fair	Slightly rough riding surface, edges beginning to break down, some moderate cracking, small areas of spalling, pavement, shoulder drop-offs, and cut repairs beginning to require attention.
D Poor	Uncomfortable and/or badly worn riding surface, extensive spalling, cracks, paving failures, poor patches and/or cut repairs, edge breakdown, and severe shoulder drop-offs.
E Unacceptable	Very rough and/or uneven ridding surface, drainage problems, large surface in bad condition, many unsatisfactory patches and cut repairs, and safety hazards.

Table 7.1 Rating Description

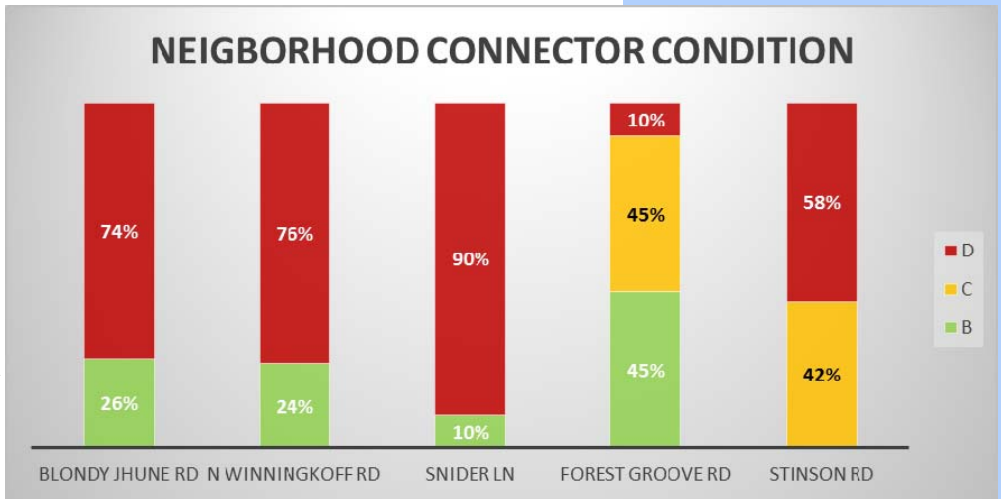


Figure 7.3 Neighborhood Connector Condition





### 3) Street Right-of-Way

Many of the roadways appear to have been constructed with inadequate right-of-way. As a result, bar ditches are too close to the road base, allowing water to prematurely deteriorate it. These narrow rights-of-way also allow trees to grow too close to the road ways, when the right-of-way is not cleaned or maintained properly. Roots from these trees have been found to burrow under the roadway. These roots cause premature damage to the pavement.

### 4) Surface Deficiencies

Surface distresses appear on many of the City streets. The asphalt pavement related-distresses that are most common included: longitudinal and transverse cracking, potholes and patch deterioration, rutting, shoving and corrugation, alligator cracking, and shoulder/pavement edge drop-offs, and deterioration. These deficiencies will lend to citizen complaints if not managed properly.

### 5) Street Width

Some roadways in the City are undersized. These narrow streets present a hindrance to vehicular circulation.

If the deficiencies outlined above are addressed, the primary roadway problems will be eliminated. The remaining streets in the City, which are maintained by TxDOT, will continue to operate effectively within their design and function classification.

## TYPES OF STREET IMPROVEMENTS

There are several different methods of maintaining streets within a City. The appropriate choice depend upon the condition of roadway, the anticipated traffic load, and available funds.

Generally, paving improvements for asphalt roadways utilize either Asphaltic Concrete or Surface Treatments. The asphaltic concrete consists of a mixture of asphalt and aggregate. Asphaltic concrete is usually prepared at an asphalt batch plant, taken to the job site, laid by street paving contractors or paving machines on a prepared base material, and compacted. Although asphaltic concrete is generally expensive, its durability and relative ease of installation makes it the preferred type of surface pavement in some communities. Surface Treatment is generally used for road maintenance or preventive maintenance of existing asphalt pavements. Surface treatment is usually used by communities to renew the pavement where the road is still in a relatively good condition. Chip seal is a very common form of asphalt surface treatment. Surface treatment is considered as a short- term solution for extending the life of a road, however it does not improve the strength of the pavement.

Recommended street maintenance improvements alternatives for City of Lucas can include the followings.

- “Do Nothing” -- This means to not perform any type of improvements. This might apply to roadways at very good condition. However, these roads should



continue to be monitored for pavement deterioration over the next 5 to 10 years.

- Point Repairs -- Excavation of failed pavement sections to a depth of eight to 10 inches, back-filled with eight inches of crushed limestone stabilized with 2% cement, primed and sealed with a coarse surface treatment. (Used to treat potholes and other imperfections and roadway hazards.)
- Level-Up -- Leveling of depressions in pavement with hot/cold mix asphalt concrete. This is used to even out roadway surface.
- Seal-Coat -- Application of asphaltic cement covered with uniform size of aggregate and rolling the aggregates after application. Ideally, used once every three to five years to maintain streets and forestall more costly repairs. It should be noted that seal-coating does not address the structural deficiencies and it is only effective when the roadway base is in relatively good structural condition. Seal-coating should be performed by only qualified contractors, as too much asphalt is wasteful and insufficient asphalt does not seal the pavement or bond the aggregate to the surface.
- Overlay -- Depending on the severity of wear, approximately one inch of surface is milled off the existing roadway. The remaining surface material is then overlaid with a minimum of 1.5 to 2 inches of hot mix asphaltic concrete, followed by a surface treatment. This is used to completely replace the surface material of a street to address pavement deterioration and extend street life.
- Reclaim -- Scarifying existing pavement and base material, while adding cement to create a recycled asphalt-enhanced roadway base. The base is then compacted and overlaid with a new asphaltic concrete pavement. Streets receiving this treatment might last five years, depending on the traffic load and environmental conditions.
- Reconstruction -- Roadway reconstruction options removes of the existing pavement structure, and the new pavement structure is recommended to include a six- to 12-inch lime treated subgrade, a flexible base, and asphaltic concrete surface layer. The existing road pavement can be also replaced with a new reinforced concrete pavement.

The City historically budgets approximately \$500,000 each year for maintaining the street system. These funds are used for point repairing, leveling-up, overlaying, and reclaiming.

## **DRAINAGE SYSTEM ANALYSIS**

The entire City relies on storm water drainage to be carried on the surface. The storm drainage system of Lucas currently consists of a system of bar ditches, channels, and culverts. These facilities carry storm water run-off within Lucas to the eventual terminus outside the city limits in Lavon Lake or Lake Ray Hubbard.

Annual precipitation is approximately 42 inches per year. The rains are heaviest in spring and fall. The streets in the City crowned to promote open ditch drainage on each side.



The Federal Emergency Management Agency (FEMA) provides flood insurance rate maps that depict the 100-year and 500-year flood plains. These flood plains cover those areas that would most likely be inundated with storm water during the heaviest rains . The 100- year floodway defines the area where buildings are not eligible for flood insurance, while those located in the 100-year floodway fringe are eligible once flood proofing is implemented. The goal of this program is to curtail development in flood plains, thereby reducing damage to structures and minimizing the danger to people during flooding. The City of Lucas is a participating city in the National Flood Insurance Program (NFIP).

The City of Lucas does not maintain most of the above drainage features within the city limits, and jurisdictions. Collin County, TxDOT, and US Army Corps of Engineers control some of those facilities in the extraterritorial jurisdiction and along some of the roadways in and around the City. Most of the necessary seasonal maintenance is the responsibility of the individual property owners. The open ditches running parallel to the city streets receive little to no maintenance from the property owners. The root cause of most if not all the negative drainage issues within the City of Lucas stem from failure of the initial design and lack of maintenance. Many of the neighborhoods and properties developed before 2002 did not have any consideration for proper drainage. Properties along West Lucas Road, north of Estates Parkway and west of Country Club Road, and along Estates Road were not graded or constructed for drainage.

## **GENERAL DRAINAGE PROBLEMS**

### **Creeks**

All creeks are subject to flooding at some point. However, most large channels have had their flood carrying capacity as indicated by FEMA, as shown on their respective floodway maps. It is important to note that creeks that have not been mapped by FEMA are still subject to inundation.

### **Bar Ditches and Water Channels**

A significant portion of the flooding that occurs in the City is associated with bar ditches and culverts being inundated with rainwater flowing off adjacent properties while following the natural topographical lay of the City. Despite the proper construction and operation of the majority of these ditches, some are not able to deal with the intense storm water flows brought on by heavy rains. As a result, water is often left standing in intersections and yards of homes after rain has subsided. This water is a breeding ground for mosquitoes, contributes to premature street damage and is a visual blight on the City. Compounding negative drainage issues is the lack of understanding by homeowners for their responsibility to maintain the drainage associated with their property.

### **Street System**

Some structures in the street system do not lend themselves to adequate drainage since the facilities exist perpendicular to the natural flow lines. In cases that culvert passage is silted, undersized or not provided, the storm water can cause premature damage to roadways and major safety problems.



## PLAN AND RECOMMENDATIONS

### Purpose

The purpose of the Streets and Drainage section of the Comprehensive Plan is to assist the City in appropriating public funds in a manner which maximizes benefit. The plan identifies those street and drainage improvements, which are needed in order to provide an efficient transportation system, as well as minimizing property damage from flooding during periods of intense rainfall in the City.

## STREET RECOMMENDATIONS

The most important consideration when developing a plan for street rehabilitation is to ensure that all plans for roadway construction also include plans for drainage improvements. In Lucas, the drainage ditches along the sides of the roads serve as a route of storm water removal from the City. All plans for road reconstruction must consider the size and slope needs for drainage ditches or the potential construction of curb and gutter as part of an underground storm sewer system. Any program for street improvements without drainage improvements would be futile.

The City has adopted specific street section designs based on the classification of the roadway. Different rights-of-way widths, pavement widths, and base thicknesses, are required for roadways that are expected to serve differing levels of traffic. This is especially useful when enforcing street quality standards and minimums for residential subdivision developments.

If several years lapse before projects are undertaken, a new assessment may be necessary to ensure that data is current. Whether increased traffic due to growth, new commercial, and changes in City; maintenance practices can change the recommendations made in this report. Street maintenance and repair plans should be reviewed annually to adjust for cost and changes in the road conditions.

Proposed improvements were based on the street analysis, focusing on the improvements that are most in need or will benefit the most people. High priority projects including highly traveled roadways in poor condition or first-time paving should be considered as soon as the City is able to finance the repairs. Typically, roads with the greatest traffic should be improved first since a larger number of people will benefit from the limited tax dollars available. This excludes the state roads since they are maintained by TxDOT. For this plan, improvements are phased. Phasing of improvements is designed to help minimize the financial impact on the community, while still realizing the need to make necessary improvements.

## PROPOSED IMPROVEMENTS

As part of the Street Plan, recommended roads for reconstruction are presented in Table 7.2. Possible funding sources has been developed and is presented below.



These projects also include improving bar ditches along these roadways as recommended previously.

For the remainder of the planning period, the City should continue to reconstruct roadways that have inadequate bases. It should be noted that while overlay is a viable solution for repairing damaged roadways, it is most effective when done on streets with properly constructed bases. If for example, a street improperly constructed to handle heavy vehicles is overlaid, it can be expected that continued traffic of this type will accelerate premature roadway damage. Therefore, it is recommended that before overlay is initiated, proper base construction be ensured. This way, maintenance costs will be reduced and the longevity of the roadway will be ensured.

Street Name	Type of Repair
Blondy Jhune Road	Reconstruction
Forest Grove Road	Reconstruction
Snider Lane and Bridge	Reconstruction
Stinson Road and Culvert	Reconstruction
Winningkoff Road	Reconstruction

Table 7.2 - Recommended Roads for Reconstruction, City of Lucas, Texas

### POSSIBLE FINANCIAL SOURCES FOR STREETS

The City should aggressively pursue these, and any other funding sources, available to assist in providing necessary street improvements:

- The General Fund
- General Obligation Bonds
- Certificates of Obligation
- City Sales Tax
- Special Fees/User Fees

### POSSIBLE FINANCIAL SOURCES FOR DRAINAGE IMPROVEMENTS

The following is a listing of sources which may be utilized to assist with future drainage projects:

- The General Fund
- General Obligation Bonds
- Certificates of Obligation
- Grants through the Office of Rural Community Affairs
- Special Fees/User Fees
- Increase landowners' participation

### ADDITIONAL FINANCIAL SOURCES

- Grants through the Office of Rural Community Affairs/Texas Community Development Program can be used to re-pave and repair streets. However, while streets are eligible, it is unlikely that a street project alone would be funded. Therefore, it might be possible to incorporate some street work into another, more fundable activity such as water line or sewer line construction where streets must be torn up to bury line.

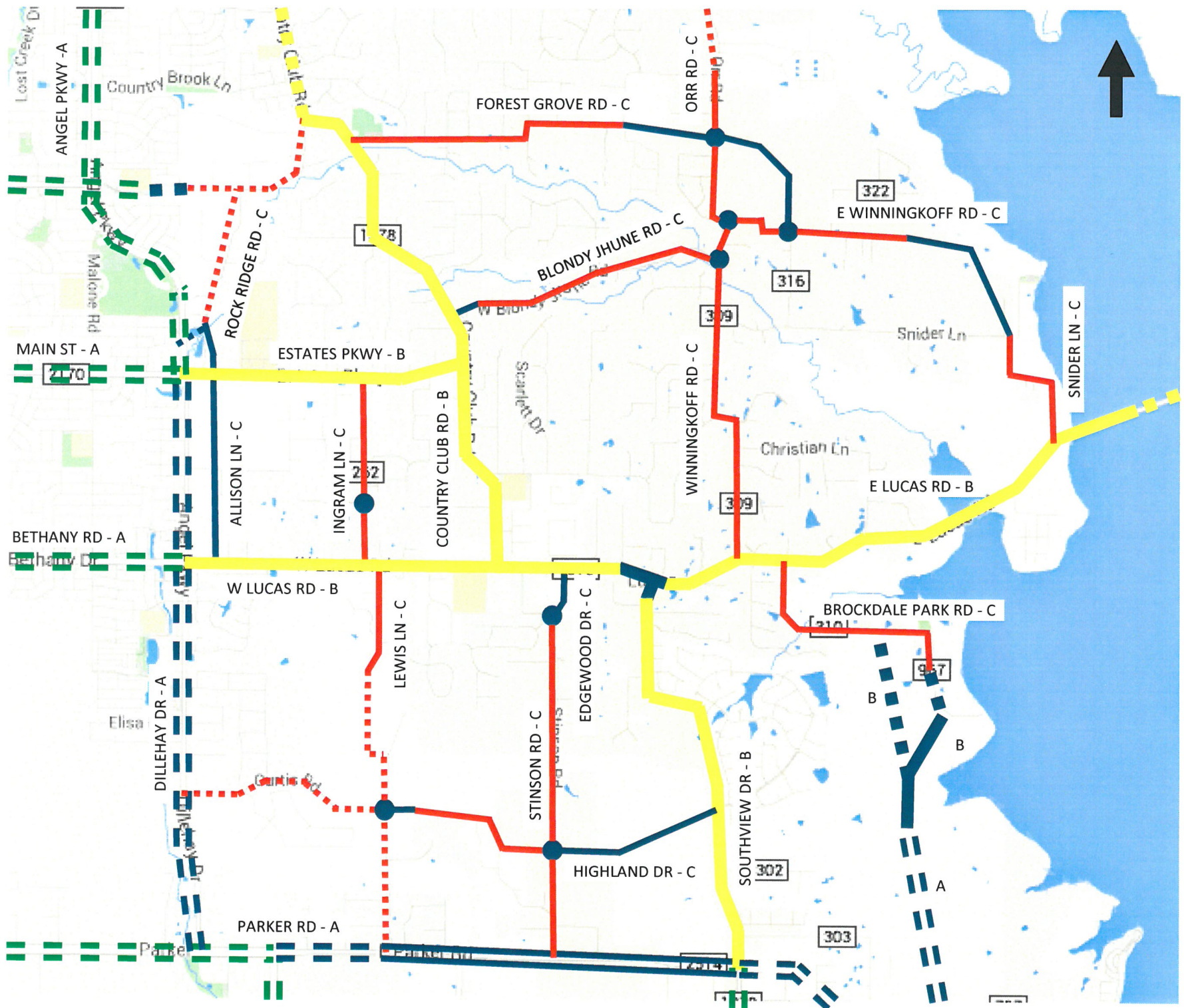


- Individuals who are required to perform community service can often be utilized to do some of the required labor. Often times, this can be accomplished by participating with local governmental units such as the county judicial system.
- The Texas Department of Transportation (TxDOT) has a program designed to maintain and improve on- and off-system roadways.
- The Texas Department of Transportation (TxDOT) also has a landscaping cost sharing program through which the department will provide landscaping materials up to 50% of the project cost. The city's contribution may be in-kind in the form of installation of materials. The city must provide the design plan for approval by the department over and above the city's in-kind contribution. Finally, the city must commit to maintaining the landscaping improvements
- Loans from the Texas Department of Agriculture. These low interest loans can be utilized in place of bank loans and the issuing of bonds.
- In an Assessment Paving Program, the City has its engineer prepare designs and cost estimates. Afterward, the City then, following carefully prescribed procedures of notices, public hearings and bidding, begins making the street improvements, assessing a portion of the costs against the adjacent property owners. The City may have to advance the cost of the projects, but eventually, the property owners will pay their fair share of the costs. This procedure is governed by the Texas Civil Statutes.








# 2014 Master Thoroughfare Plan (Figure 10.2.1)



## Legend

- Solid lines are thoroughfares within the city.
- Dashed lines are thoroughfares outside the city.
- Blue lines are proposed thoroughfares.
- Blue dots are proposed roundabout locations.
- Thoroughfare name is followed by thoroughfare type.

Thoroughfare Type	No. of Lanes	Divided Roadway	Pavement Width (Feet)	Right-of-Way Width (Feet)
A 	Six	Yes	78 Plus a 16-Foot Median	120
B 	Four	No	64	90
C 	Two	No	34	60
D (Not Shown)	Two	No	24	50