AGENDA

Planning and Zoning Commission Meeting
January 13, 2022 | 7:00 PM
Council Chambers | Video Conference
City Hall | 665 Country Club Road, Lucas, Texas

Notice is hereby given that a meeting of the City of Lucas Planning and Zoning Commission will be held on Thursday, January 13, 2022 at 7:00 pm at Lucas City Hall, 665 Country Club Road, Lucas, Texas 75002-7651 and by video conference, 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.

To join the meeting, please click this URL:
https://us06web.zoom.us/s/92691972860?pwd=cWJxTnZGWW1hZDhDVlFNSXJwZFpTQT09
and enter your name and email address.
Join by phone: 1-346-248-7799
Webinar ID: 926 9197 2860
Passcode: 813188

If you would like to watch the meeting live, and not participate via Zoom, you may go to the City's live streaming link at https://www.lucastexas.us/live-streaming-videos/.

How to Provide Input at a Meeting:

Speak In Person: Request to Speak forms will be available at the meeting. Please fill out the form and give to the City Secretary prior to the start of the meeting. This form will also allow a place for comments.

Speak Remotely Via Zoom: If you would like to attend a meeting remotely and speak via Zoom, email the City Secretary at shenderson@lucastexas.us by 4:00 pm noting the item you wish to speak on and noting your attendance will be remote. Please note, any requests received after 4:00 pm will not be included at the meeting.

Submit Written Comments: If you are unable to attend a meeting and would like to submit written comments regarding a specific agenda item, email the City Secretary at shenderson@lucastexas.us by no later than 4:00 pm the day of the meeting. The email must contain the person's name, address, phone number, and the agenda item(s) for which comments will be made. Any requests received after 4:00 pm will not be included at the meeting.

Call to Order

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

Regular Agenda

1. Discuss proposed revisions to the City's Stormwater Run-Off Planning and Design Criteria Manual. **(On-Call Engineer Joe Grajewski)**

2. Consider the request by Josh Edge on behalf of James Irwin for a preliminary plat for a parcel of land being 22.679 acres, part of the Jas Lovelady Survey, Abstract 538, Tract 21, located on the south side of West Lucas Road and north of Stinson Road, located between 505 West Lucas Road and 685 West Lucas Road. **(Development Services Director Joe Hilbourn)**

3. Consider the request by Stephen DiNapoli for an amended preliminary plat for a parcel of land, being 41.512 acres, part of the John Thompson Survey, Abstract 893 and the G. Ducase Survey, Abstract 270 located on the northeast side of Winningkoff Road and north of Christian Lane, more commonly known as 950 Winningkoff Road, 970 Winningkoff Road, and 905 Christian Lane, Lucas, Texas, (Barratt Lake Estates). **(Development Services Director Joe Hilbourn)**

4. Consider final review and approval of amendments to Chapters 1, 2, and 3 of the City of Lucas Comprehensive Plan and review Chapters 4, 5, and 6 of the Comprehensive Plan to discuss possible amendments. **(Planning and Zoning Commission)**

5. Consider the appointment of a Chairman and Vice Chairman of the Planning and Zoning Commission to serve for a period of one (1) year with a term ending December 31, 2022. **(Planning and Zoning Commission)**

6. Consider approval of the minutes of the December 9, 2021, Planning and Zoning Commission meeting. **(City Secretary Stacy Henderson)**

Executive Agenda

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 regarding any item on the agenda at any time during the meeting. This meeting is closed to the public as provided in the Texas Government Code.

7. Executive Session: An Executive Session is not scheduled for this meeting.

8. Adjournment.

Certification

I do 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, Texas 75002 and on the City's website at www.lucastexas.us on or before 5:00 p.m. on January 7, 2022.

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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 at least 48 hours prior to the meeting.

Item No. 01

City of Lucas
Planning and Zoning Agenda Request
January 13, 2022

Requester: On-Call Engineer Joe Grajewski, P.E., CFM

Agenda Item Request

Discuss proposed revisions to the City's Stormwater Run-Off Planning and Design Criteria Manual.

Background Information

City Staff has reviewed criteria contained in Section 10.04 of the Code of Ordinances and the Stormwater Run-Off Planning and Design Criteria Manual (Drainage Design Manual). The following revisions are proposed:

1. Section 10.04.021 of the Code of Ordinances includes the requirement that drainage plans and calculations be included and submitted with the construction plans. Staff recommends adding the attached list of required information to be included with the drainage plans. This list (and associated sample calculation table) shall be added to the Drainage Design Manual.

2. Section 'D' of the Drainage Design Manual includes information regarding rainfall intensity and frequency. The manual states that rainfall intensities shall be obtained from TxDOT or other governmental sources in our area. Staff recommends striking this language and adopting the use of the National Oceanic and Atmospheric Administration (NOAA) Atlas 14 Point Precipitation Frequency Estimates. This service (referred to as Atlas 14) is considered the best available data for rainfall intensities. The most recent TxDOT Hydraulic Design Manual (revised September 2019) directs the use of Atlas 14 on all projects.

Attachments/Supporting Documentation

1. List of required information to be included with drainage plans
2. NOAA Atlas 14 for Lucas, Texas
3. Ordinance 2009-04-00655 Planning & Design Criteria for Stormwater Run-Off Manual

Budget/Financial Impact

NA

Recommendation

This item is for review by the Planning and Zoning Commission to approve the recommended changes to the Drainage Design Manual.

Item No. 01

City of Lucas
Planning and Zoning Agenda Request
January 13, 2022

Motion

There is no motion on this item. Please provide direction to staff if these recommendations are acceptable or if something different is desired.

List of Required Information To Be Included with Drainage Plans

At a minimum, drainage plans shall include, but are not limited to the following:

a) Drainage area map
b) Drainage area calculations (including size in acres, runoff coefficient, time of concentration, intensities for each required storm event and calculated flows for each storm event). Refer to the sample drainage area calculation table.
c) Inlet calculations. Refer to the sample inlet calculation table.
d) Open channel and/or storm sewer calculations. Refer to the sample open channel and storm sewer calculation tables.
e) Plan view drawings including centerline alignment (with stationing) for all open channel and closed conduit conveyances.
f) Profile view drawings including alignment stationing and vertical slope for all open channel and closed conduit conveyances. Hydraulic information stating the quantity of flow (in cubic feet per second), the velocity of flow (in feet per second), the depth of flow (in feet), and the maximum capacity of each segment of the conveyance shall be included.
g) Cross sections on 100-ft intervals for all open channel conveyances including the 100-year water surface elevation. Each section shall demonstrate that a minimum of 1-ft of freeboard is provided. Hydraulic information stating the quantity of flow (in cubic feet per second), the velocity of flow (in feet per second), and the depth of flow (in feet) shall be included for each cross section.
h) Grading plans for detention and retention ponds.
i) Details and calculations for the outfall structures at each detention or retention pond. The calculations shall demonstrate that post-development run-off rates are reduced to pre-development rates, or the capacity of downstream systems, whichever is less.
j) Storm sewer details
k) Any additional information as requested by the City Engineer

NOAA Atlas 14, Volume 11, Version 2
Location name: Allen, Texas, USA*
Latitude: 33.0895°, Longitude: -96.5908°
Elevation: 612.24 ft**
* source: ESRI Maps
** source: USGS

POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Sandra Pavlovic, Michael St. Laurent, Carl Trypaluk, Dale Unruh, Orlan Wilhite

NOAA, National Weather Service, Silver Spring, Maryland

PF_tabular | PF_graphical | Maps_&_aerials

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches/hour)[1]

Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	**5.17** (3.91-6.82)	**5.94** (4.55-7.82)	**7.24** (5.52-9.53)	**8.29** (6.23-11.0)	**9.72** (7.07-13.2)	**10.8** (7.64-15.0)	**11.9** (8.18-16.8)	**12.9** (8.70-18.7)	**14.4** (9.35-21.3)	**15.5** (9.79-23.3)
10-min	**4.13** (3.13-5.45)	**4.76** (3.64-6.26)	**5.80** (4.42-7.64)	**6.65** (4.99-8.84)	**7.80** (5.68-10.6)	**8.68** (6.15-12.0)	**9.53** (6.57-13.5)	**10.4** (6.96-14.9)	**11.4** (7.42-16.9)	**12.2** (7.72-18.4)
15-min	**3.44** (2.60-4.54)	**3.95** (3.03-5.20)	**4.80** (3.66-6.33)	**5.50** (4.13-7.31)	**6.44** (4.68-8.74)	**7.14** (5.06-9.89)	**7.84** (5.40-11.1)	**8.54** (5.74-12.3)	**9.48** (6.16-14.0)	**10.2** (6.45-15.3)
30-min	**2.40** (1.81-3.17)	**2.75** (2.11-3.62)	**3.33** (2.54-4.39)	**3.81** (2.86-5.06)	**4.45** (3.23-6.03)	**4.93** (3.48-6.82)	**5.40** (3.73-7.63)	**5.90** (3.96-8.50)	**6.56** (4.26-9.70)	**7.08** (4.48-10.7)
60-min	**1.56** (1.18-2.06)	**1.79** (1.37-2.36)	**2.18** (1.67-2.88)	**2.50** (1.88-3.33)	**2.93** (2.13-3.97)	**3.26** (2.30-4.50)	**3.58** (2.47-5.06)	**3.92** (2.64-5.66)	**4.39** (2.86-6.50)	**4.76** (3.02-7.17)
2-hr	**0.951** (0.728-1.24)	**1.11** (0.857-1.44)	**1.37** (1.05-1.78)	**1.59** (1.20-2.08)	**1.88** (1.38-2.52)	**2.11** (1.51-2.89)	**2.35** (1.64-3.28)	**2.61** (1.77-3.70)	**2.96** (1.94-4.31)	**3.24** (2.06-4.81)
3-hr	**0.701** (0.540-0.908)	**0.826** (0.640-1.06)	**1.03** (0.795-1.32)	**1.20** (0.914-1.56)	**1.44** (1.06-1.91)	**1.62** (1.17-2.20)	**1.82** (1.27-2.51)	**2.03** (1.38-2.86)	**2.32** (1.53-3.35)	**2.55** (1.63-3.76)
6-hr	**0.415** (0.323-0.531)	**0.494** (0.386-0.624)	**0.620** (0.485-0.789)	**0.728** (0.562-0.938)	**0.882** (0.658-1.16)	**1.00** (0.728-1.35)	**1.13** (0.799-1.55)	**1.27** (0.873-1.77)	**1.47** (0.972-2.09)	**1.63** (1.05-2.36)
12-hr	**0.243** (0.192-0.308)	**0.291** (0.230-0.362)	**0.366** (0.290-0.460)	**0.431** (0.336-0.548)	**0.522** (0.394-0.678)	**0.595** (0.436-0.787)	**0.673** (0.479-0.906)	**0.757** (0.524-1.04)	**0.876** (0.585-1.23)	**0.973** (0.632-1.39)
24-hr	**0.143** (0.114-0.179)	**0.171** (0.137-0.211)	**0.215** (0.173-0.267)	**0.253** (0.200-0.318)	**0.307** (0.234-0.393)	**0.350** (0.259-0.456)	**0.395** (0.284-0.525)	**0.445** (0.311-0.602)	**0.516** (0.347-0.715)	**0.574** (0.375-0.808)
2-day	**0.083** (0.067-0.103)	**0.099** (0.080-0.121)	**0.124** (0.101-0.153)	**0.146** (0.117-0.181)	**0.177** (0.136-0.223)	**0.201** (0.150-0.258)	**0.226** (0.164-0.296)	**0.255** (0.180-0.340)	**0.296** (0.201-0.404)	**0.329** (0.217-0.457)
3-day	**0.061** (0.049-0.074)	**0.072** (0.059-0.087)	**0.090** (0.074-0.110)	**0.106** (0.085-0.130)	**0.128** (0.099-0.160)	**0.145** (0.109-0.185)	**0.163** (0.119-0.212)	**0.184** (0.130-0.243)	**0.214** (0.146-0.289)	**0.238** (0.158-0.327)
4-day	**0.048** (0.039-0.059)	**0.057** (0.047-0.069)	**0.072** (0.059-0.087)	**0.084** (0.068-0.103)	**0.102** (0.079-0.127)	**0.116** (0.087-0.147)	**0.130** (0.095-0.168)	**0.147** (0.104-0.193)	**0.170** (0.117-0.229)	**0.190** (0.126-0.260)
7-day	**0.031** (0.025-0.037)	**0.037** (0.030-0.043)	**0.046** (0.038-0.055)	**0.054** (0.044-0.065)	**0.065** (0.051-0.081)	**0.074** (0.057-0.094)	**0.084** (0.062-0.108)	**0.095** (0.068-0.123)	**0.110** (0.076-0.147)	**0.123** (0.082-0.166)
10-day	**0.023** (0.019-0.028)	**0.028** (0.023-0.033)	**0.035** (0.029-0.042)	**0.041** (0.034-0.049)	**0.050** (0.039-0.061)	**0.057** (0.043-0.071)	**0.064** (0.048-0.081)	**0.072** (0.052-0.093)	**0.084** (0.058-0.111)	**0.093** (0.063-0.125)
20-day	**0.015** (0.013-0.018)	**0.018** (0.015-0.021)	**0.022** (0.019-0.026)	**0.026** (0.021-0.031)	**0.031** (0.024-0.037)	**0.035** (0.027-0.042)	**0.038** (0.029-0.048)	**0.043** (0.031-0.054)	**0.049** (0.034-0.063)	**0.054** (0.036-0.071)
30-day	**0.012** (0.010-0.014)	**0.014** (0.012-0.017)	**0.017** (0.015-0.020)	**0.020** (0.017-0.024)	**0.024** (0.019-0.028)	**0.026** (0.020-0.032)	**0.029** (0.022-0.036)	**0.032** (0.023-0.040)	**0.036** (0.025-0.046)	**0.039** (0.027-0.051)
45-day	**0.010** (0.009-0.012)	**0.012** (0.010-0.014)	**0.014** (0.012-0.016)	**0.016** (0.014-0.019)	**0.019** (0.015-0.022)	**0.021** (0.016-0.025)	**0.023** (0.017-0.028)	**0.025** (0.018-0.031)	**0.028** (0.020-0.035)	**0.030** (0.020-0.039)
60-day	**0.009** (0.008-0.010)	**0.010** (0.009-0.012)	**0.012** (0.011-0.014)	**0.014** (0.012-0.016)	**0.016** (0.013-0.019)	**0.018** (0.014-0.022)	**0.020** (0.015-0.024)	**0.021** (0.016-0.026)	**0.023** (0.017-0.030)	**0.025** (0.017-0.032)

[1] Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

Please refer to NOAA Atlas 14 document for more information.

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PF graphical

☐ Annexation
☐ Disannexation
☒ Code of Ordinances
☐ Other

ORDINANCE # 2009-04-00644
[PLANNING & DESIGN CRITERIA FOR STORMWATER RUN-OFF]

THE CITY COUNCIL OF LUCAS, TEXAS APPROVES THE ADOPTION OF A PLANNING AND DESIGN DRAINAGE CRITERIA FOR STORM WATER RUN-OFF TO BE MAINTAINED ON FILE IN THE OFFICE OF THE CITY SECRETARY; PROVIDING A SEVERABILITY CLAUSE; PROVIDING A REPEALING CLAUSE; PROVIDING FOR A PENALTY OR FINE NOT TO EXCEED THE SUM OF TWO THOUSAND DOLLARS ($2,000) FOR OFFENSES; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, the City Council has determined an urgent need for the adoption of guidelines for storm water run-off;

WHEREAS, the City Council desires to adopt the Planning and Design Drainage Criteria for storm water run-off attached hereto as Exhibit "A."

NOW, THEREFORE, BE IT ORDAINED THAT THE CITY COUNCIL OF THE CITY OF LUCAS THAT:

SECTION 1. The City Council hereby approves and adopts the Planning and Design Drainage Criteria ("Criteria") attached as Exhibit "A." The City commits to the implementation of the requirements and guidelines set forth in the adopted Criteria. A copy of the Criteria will be maintained on file in the office of the City Secretary.

SECTION 2. If any section, paragraph, subdivision, clause, phrase or provision of this ordinance shall be judged invalid or unconstitutional, the same shall not affect the validity of this ordinance as a whole or any portion thereof other than that portion so decided to be invalid or unconstitutional.

SECTION 3. That all provisions of the Ordinances of the City of Lucas in conflict with the provisions of this Ordinance be, and the same are hereby repealed and all other provisions of the Ordinances of the City of Lucas not in conflict with the provisions of this Ordinance shall remain in full force and effect.

SECTION 4. That an offense committed before the effective date of this ordinance is governed by the prior law and the provisions of the Code of Ordinances, as amended, in effect when the offense was committed and the former law is continued in effect for this purpose.

SECTION 5. 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) for each offense, and each and every day such violation shall continue shall be deemed to constitute a separate offense.

SECTION 6. This ordinance shall take effect immediately from and after its passage as the law in such case provides.

DULY PASSED BY THE CITY COUNCIL OF THE CITY OF LUCAS, COLLIN COUNTY, TEXAS ON THIS THE 2nd DAY OF APRIL, 2009.

DULY PASSED BY THE CITY COUNCIL OF THE CITY OF LUCAS, COLLIN

APPROVED:

Bill Carmickle, Mayor

ATTEST:

Kathy Wingo, TRMC, City Secretary

CITY OF LUCAS, TEXAS SEAL

APPROVED AS TO FORM:

Joe Gorfida, Jr., City Attorney
(JJG/cgo/35057)

WATER RUN-OFF MANUAL

PLANNING AND DESIGN DRAINAGE CRITERIA

A. General

The Drainage Criteria included in this section are for the purpose of providing a set of guidelines for planning and designing storm drainage facilities in the City of Lucas, Texas and within its extraterritorial jurisdiction. These criteria will be used by the Department of Public Works, other City Departments, consulting engineers employed by the City, and engineers for private developments in the City.

B. Rational Method for Peak Storm Flows

The formula to be used for calculating peak storm flows for drainage areas less than 200 acres shall be the Rational Method, in which:
Q = CIA, where
Q - is the peak storm flow at a given point in cubic feet per second (cfs)
C - is the runoff coefficient that is equal to the ratio that the peak rate of runoff bears to the average rate (intensity)of rainfall;
I - is the average intensity of rainfall in inches per hour for a storm duration equal to the time of travel for run off to flow from the farthest point of the drainage area to the design point in question;
A - is the drainage area tributary to the design point, in acres.
Note: For drainage areas greater than 200 acres, peak storm flows shall be determined based on a flow routing analysis using detailed hydrographs such as the Soil Conservation Service hydrologic methods that are available in such computer programs as TR-20, HEC-1, etc.

C. Runoff Coefficient

The runoff coefficient (C) shall consider the slope of the terrain, the character of the land use, the length of overland flow and the imperviousness of the drainage area and shall be determined based on ultimate land development. The run-off coefficient for the appropriate land used shall be as follows:
Commercial 0.90
Industrial 0.70
Single Family Residential 0.55
Multi-Family 0.75
Parks and Open Space 0.35
Schools, Churches, etc. 0.75

D. Rainfall Intensity-Frequency

The rainfall intensity-frequency curves should be platted from data from TXDOT or other government sources in our area. The intensity (I) in the formula Q = CIA, is determined from the curves by arriving at a time of concentration for the subject drainage area and adapting a storm frequency upon which to base the design of drainage improvements.

1. Time of Concentration The time of concentration, which is the longest time of travel for runoff to flow from any point of the subject drainage area to the design point, consists of the time required for runoff to flow overland plus the time required to flow in a street gutter, storm drain, open channel or other conveyance facility. A minimum time of concentration of fifteen (15) minutes shall be used for Single Family Residential, Parks and Open Space areas and a minimum time of concentration of ten (10) minutes shall be used for Commercial, Industrial, Multi-Family Residential, School and Church areas. A nomograph, is attached for estimating the time of concentration.

2. Storm Frequency

Required design storm frequencies for storm drainage improvements in the City of Lucas are shown in the following table.

Type of Facility	Design Frequency (years)
*Storm Sewer Systems	25
*Culverts, Bridges,	100

* The drainage system shall be designed to carry those flows greater than the 25-year frequency up to and including a 100-year frequency within defined rights-of-way or drainage easements.

E. Area

The drainage area used in determining peak storm flows shall be calculated by subdividing a map into the watersheds within the basin contributing storm water runoff to the system. Areas shall be determined by planimetering or digitizing.

F. Spread of Water

During the design storm, the quantity of storm water that is allowed to collect in the streets before being intercepted by a storm drainage system is referred to as the "spread of water". In determining the limitations for carrying storm water in the street, the ultimate development of the street shall be considered. The use of the street for carrying storm water shall be limited to the following:

SPREAD OF WATER

Major thoroughfares (divided) - One traffic lane on each side to remain clear.
Thoroughfares (not divided) - Two traffic lanes to remain clear.

Collector streets - One traffic lane to remain clear.
Residential streets - Six-inch depth of flow at curb and One traffic lane to remain clear.

G. Storm Sewer Design

Storm water in excess of that allowed to collect in the streets shall be intercepted in inlets and conveyed in a storm sewer system. Storm sewer capacity shall be calculated by the Mannings-formula --

$Q = AV$, and
$Q = 1.486\ AR2/3S1/2n$
where
Q is the discharge in cubic feet per second;
A is the cross-sectional area of the conduit in square feet;
V is the velocity of flow in the conduit in feet per second;
R is the hydraulic radius in feet, which is the area of flow divided by the wetted Perimeter.
S is the slope of the hydraulic gradient in feet per foot;
n is the coefficient of roughness.
The recommended roughness coefficients to use in the design of a storm sewer system are as follows:

Type of Storm Drain	Manning's Coefficient
Concrete Box Culvert	0.015
New Concrete Pipe	0.013
Standard, unpaved, with or without bituminous coating corrugated metal pipe	0.024
Paved invert, 25% of periphery paved corrugated metal pipe	0.021
Paved invert, 50% of periphery paved corrugated metal pipe	0.018
100% paved and bituminous coated corrugated metal pipe	0.013

In the design of the storm sewer system, the elevation of the hydraulic gradient of the storm sewer shall be a minimum of 0.5 feet below the elevation of the adjacent street gutter. Storm sewer pipe sizes shall be so selected that the average velocity in the pipe will not exceed 15 feet per second nor less than 3 feet per second. The minimum grade recommended for storm sewer pipe is 0.30%. Closed storm sewer systems shall be installed in all areas where the quantity of storm runoff is 300 cubic feet per second, or less at the discretion of the city. A closed storm sewer system may be constructed when the quantity exceeds 300 cfs, at the discretion of the City. Hydraulic gradients shall be calculated and lines drawn for each storm sewer.

H. Intentionally left blank for future use

I. Open Channel Design

Storm water runoff in excess of that allowed to collect and be conveyed in the streets in developed areas and runoff in undeveloped areas may be carried in grass lined, concrete lined or weathered rock open channels. Earthen, non-vegetated or unlined open channels are not acceptable. Open channel capacity shall be calculated by the Manning's Formula, and roughness coefficients shall be as follows:

Type of Lining	Roughness Coefficient "n"	Maximum Permissible Mean Velocity
Earth (Bermuda grass)	0.035	6 ft. per sec.
Concrete Lined	0.015	15 ft. per sec.
Weathered Rock	0.030	10 ft. per sec.

Open channels shall be constructed with a trapezoidal cross-section and shall have side slopes no steeper than 3:1 when grass lined and 1.5:1 when lined with concrete. A right-of -way for all channels of sufficient width shall be dedicated to provide for excavation of the open channel of proper width, plus ten feet on each side to permit ingress and egress for maintenance. Additional width may be considered if sanitary sewer mains are proposed to follow the channel alignment.

J. Culvert Design

At locations of stream or open channel crossings with proposed roadway improvements, it is sometimes necessary to receive and transport storm water under the roadway in culverts. The quantity of flow shall be determined by the appropriate method, and the friction loss through of the culvert shall be calculated by Manning's Formula.
Design of culverts shall include the determination of upstream backwater conditions as well as downstream velocities and flooding conditions. Consideration shall be given to the discharge velocity from culverts, and the limitations specified culverts shall not be less than 18". A headwall is required at exposed ends. Under private drives concrete or steel culverts, under public road concrete culverts are required.

K. Stormwater Detention Pond Design

The basic concept underlying the use of stormwater detention ponds (SDP) involves providing temporary storage of stormwater runoff so that peak rates of runoff can be reduced. Runoff is released from storage at a controlled rate which cannot exceed the capacities of the existing downstream drainage systems or the pre developed peak runoff rate of the site, whichever is less. Stormwater detention ponds may be of two (2) basic types: On-site and Regional. In general, on-site ponds are those which are located off-channel and provide stormwater detention for a particular project of development. Regional ponds are designed to provide stormwater detention in conjunction with other improvements on a watershed-wide basis. The performance and safety criteria in this section apply to all ponds which provide management of peak rates of stormwater runoff, regardless of type.

PERFORMANCE CRITERIA FOR ON-SITE SDP's

1. On-site SDP's are further classified as either small or large, as follows:

ON-SITE SDP
POND CLASS DRAINAGE AREA
Small <25 acres
Large 25-64 acres
For design purposes, any pond with a drainage area larger that 64 acres shall be classified as a regional pond.

2. On-site SDP ponds shall be designed to reduce post-development peak rate of discharge to existing pre-development peak rates of discharge for the 2-, 10-, 25- and 100-year storm events at each point of discharge from the project or development site. In addition, the capacity of the existing downstream systems must be considered in determining the need for managing the 100-year storm event. For the post-development hydrologic analysis, any offsite areas which drain to the pond shall be assumed to remain in the existing developed condition.

3. The Rational Method (RM) may be used for the design of small on-site ponds only. The maximum contributing drainage area to a pond designed with the RM is 50 acres when using this equation.

4. A design method approved by the City Engineer.

PERFORMANCE CRITERIA FOR REGIONAL SDP's

1. Regional SDP's are classified as small or large, based on the following criteria:

REGIONAL IMPOUNDED
POND CLASS VOLUME, AC-FT
Small 0-150
Large >150
Any regional pond with a height of dam over 15 feet shall be classified as a large regional pond.
2. Performance criteria for regional detention ponds shall be determined by the City on a project-by-project basis. The determination shall be based on a preliminary engineering study prepared by the project engineer.

SAFETY CRITERIA FOR SDP's

All ponds shall meet or exceed all specified safety criteria. Use of these criteria shall in no way relieve the engineer of the responsibility for the adequacy and safety of all aspects of the design of the SDP.

1. The spillway, embankment, and appurtenant structures shall be designed to safely pass the design storm hydrograph with the freeboard shown in the table below. All contributing drainage areas, including on-site and off-site area, shall be assumed to be fully developed. Any

orifice with a dimension smaller than or equal to twelve (12) inches shall be assumed to be fully blocked.

DETENTION DESIGN STORM FREEBOARD TO TOP
POND CLASS EVENT OF EMBANKMENT, FT.
On-site: Small 100 year 0
Large 100 year 1.0
Regional: Small 100 Year 2.0
Large 100 year *
*Design storm event and required freeboard for large regional ponds shall be determined in accordance with Chapter 299 of the Texas Administrative Code (Dam Safety Rules of the Texas Natural Resource Conservation Commission).

2. All SDP's (except small on-site ponds) shall be designed using a hydrograph routing methodology. The Rational Method (RM) may be used only for contributing drainage areas less than fifty (50) acres.

3. The minimum embankment top width of earthen embankments shall be as follows:

TOTAL HEIGHT OF MINIMUM TOP EMBANKMENT, FT. WIDTH, FT.
0-6, 4'
6-10, 6'
10-15, 8'
15-20, 10'
20-25, 12'
25-35, 15'

4. The constructed height of an earthen embankment shall be equal to the design height plus the amount necessary to ensure that the design height will be maintained once all settlement has taken place. This amount shall in no case be less than five (5%) percent of the total fill height. All earthen embankments shall be compacted to 95% of maximum density.

5. Earthen embankment side slopes shall be no steeper than three (3) horizontal to one (1) vertical. Slopes must be designed to resist erosion, to be stable in all conditions and to be easily maintained. Earthen side slopes for regional facilities shall be designed on the basis of appropriate geotechnical analyses.

6. Detailed hydraulic design calculation shall be provided for all SDP's. Stage-discharge rating data shall be presented in tabular form with all discharge components, such as orifice, weir, and outlet conduit flows, clearly indicated. A stage-storage table shall also be provided.

7. When designing SPD's in a series (i.e., when the discharge of one pond becomes the inflow to another), the engineer must submit a hydrologic analysis which demonstrates the system's adequacy. This analysis must incorporate the development of hydrographs for all inflow and outflow components.

8. No outlet structures from SDP's, parking detention, or other concentrating structures shall be designed to discharge concentrated flow directly onto arterial or collector streets. Such discharges shall be conveyed by a closed conduit to the nearest existing storm sewer. If there is no existing storm sewer within 300 feet, the outlet design shall provide for a change in the discharge pattern from concentrated flow back to sheet flow, following as near as possible the direction of the gutter.

9. Stormwater runoff may be detained within parking lots. However, the engineer should be aware of the inconvenience to both pedestrians and traffic. The location of ponding areas in a parking lot should be planned so that this condition is minimized. Stormwater ponding depths (for the 100-year storm) in parking lots are limited to an average of eight (8") inches with a maximum of twelve (12") inches.

10. All pipes discharging into a public storm sewer system shall have a minimum diameter of twelve (12"). In all cases, ease of maintenance and/or repair must be assured.

11. All concentrated flows into a SDP shall be collected and conveyed into the pond in such a way as to prevent erosion of the side slopes. All outfalls into the pond shall be designed to be stable and non-erosive.

OUTLET STRUCTURE DESIGN

There are two (2) basic types of outlet control structures: those incorporating orifice flow and those incorporating weir flow. Weir flow is additionally broken down into two (2) categories: rectangular and V-notch. In each type, the bottom edge of the weir over which the water flows is called the crest. Sharp-crested and broad-crested weirs are the most common types. Generally, if the crest thickness is more than 60% of the nappe thickness, the weir should be considered broad-crested. The coefficients for sharp-crested and broad-crested weirs vary. The respective weir and orifice flow equations are as follows:

1. Rectangular Weir Flow Equation
   $Q = CLH\ 3/2$
   where
   Q = Weir discharge, cubic feet per second
   C = Weir coefficient
   L = Horizontal length, feet
   H = Head on weir, feet
   2. V-notch Weir Flow Equation \\
   $Q = Cv \tan (O/2)H\ 2.5$
   where
   Q = Weir Flow, cubic feet per second
   Cv = Weir Coefficient
   O = Angle of the Weir notch at the apex (degrees)
   H = Head on Weir, feet

3. Orifice Flow Equation
   $Q = Co\ A\ (2gH)\ 0.5$
   Where
   Q = Orifice Flow, cubic feet per second
   Co = Orifice Coefficient (use 0.6)
   A = Orifice Area, square feet
   g = Gravitation constant, 32.2 feet/sec^2
   H = Head on orifice measured from centerline, feet

Analytical methods and equations for other types of structures shall be approved by the City prior to use.

DETENTION POND STORAGE DETERMINATION

The method to be used for determining detention pond volume requirements is governed initially by the size of the total contributing drainage area to the pond.
For contributing areas up to fifty (50) acres, the Rational Method (RM) may be used.
For contributing areas greater than fifty (50) acres, a flow routing analysis using detailed hydrographs must be applied. The Soil Conservation Service hydrologic methods (available inTR-20, HEC-1) can be used. The engineer may use other methods but must have their acceptability approved by the City engineer. These methods may also be used for the smaller areas.

DETENTION POND MAINTENANCE AND EQUIPMENT ACCESS REQUIREMENTS

1. Silt shall be removed and the pond returned to original lines and grades when standing water conditions occur or the pond storage volume is reduced by more than 10%.

2. To limit erosion, no unvegetated area shall exceed 10 sq. ft in extent.

3. Accumulated paper, trash and debris shall be removed every 4 weeks or as necessary to maintain proper operation.

4. Ponds shall be mowed monthly between the months of May and September.

5. Corrective maintenance is required any time a pond does not drain completely within 60 hours of cessation of inflow (i.e., no standing water is allowed).

6. Structural integrity of pond embankments shall be maintained at all times.

7. Upon completion of development the owners/Homeowners association shall be required to maintain the detention basin in its original designed and approved condition.

Item No. 02

City of Lucas
Planning and Zoning Agenda Request
January 13, 2022

Requester: Development Services Director Joe Hilbourn

Agenda Item

Consider the request by Josh Edge on behalf of James Irwin for a preliminary plat for a parcel of land being 22.679 acres, part of the Jas Lovelady Survey, Abstract 538, Tract 21, located on the south side of West Lucas Road and north of Stinson Road, located between 505 West Lucas Road and 685 West Lucas Road.

Background Information

This parcel of land is currently zoned Residential 2-acre (R-2), containing 22.679 acres of land, and proposes ten (10) new residential lots.

Attachments/Supporting Documentation

1. Preliminary Plat
2. Location Map
3. Plat Application and Checklist

Budget/Financial Impact

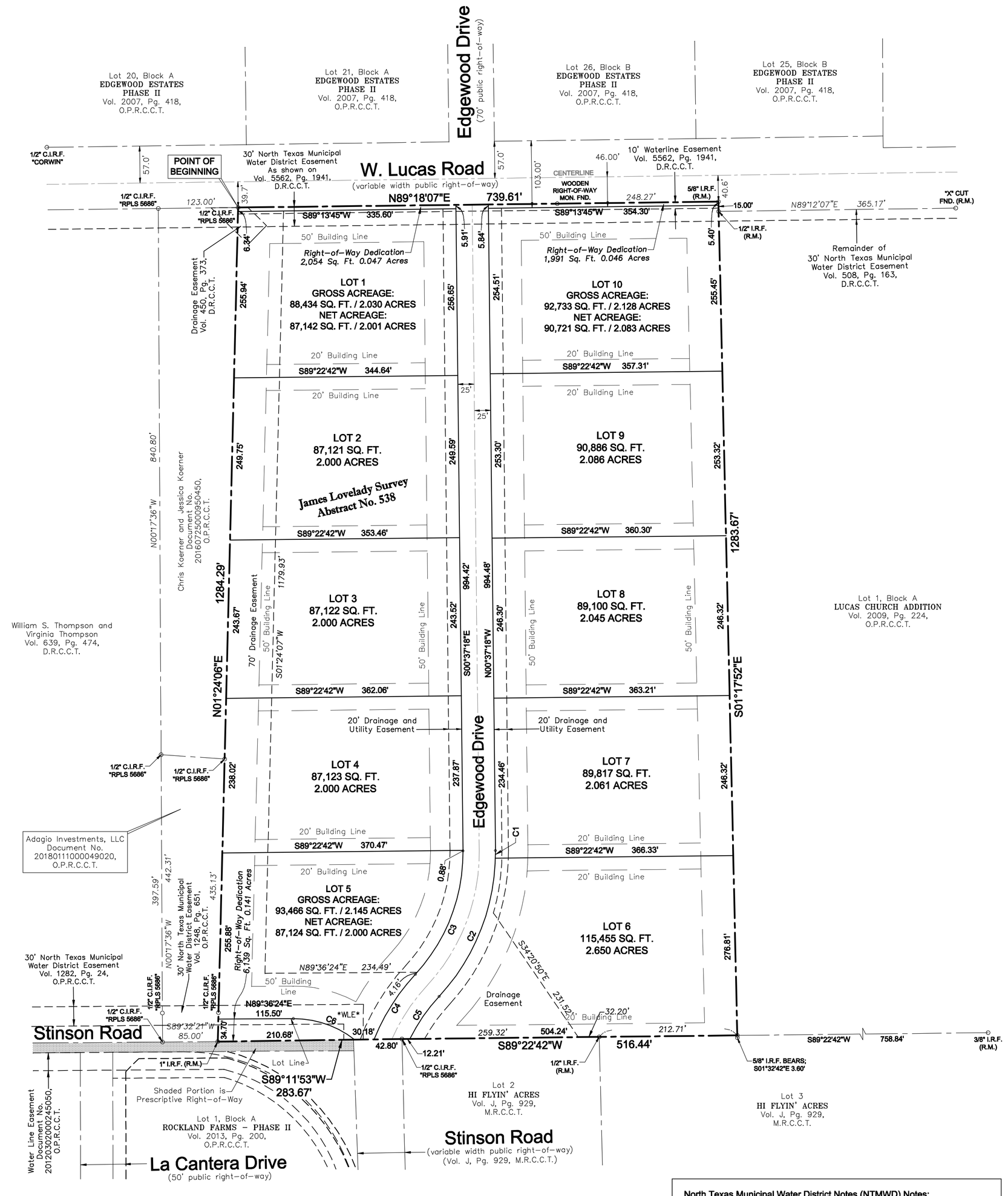
NA

Recommendation

Staff recommends approval of the preliminary plat.

Motion

I make a motion to approve/deny the request for a preliminary plat for a parcel of land being 22.679 acres, part of the Jas Lovelady Survey, Abstract 538, Tract 21, located on the south side of West Lucas Road and north of Stinson Road, located between 505 West Lucas Road and 685 West Lucas Road.



ABBREVIATIONS

I.R.F. = Iron Rod Found

(C.M.) = Controlling Monument

C.I.R.F. = Capped Iron Rod Found

C.I.R.S. = 1/2" iron rod with yellow plastic cap stamped "RPLS 5686" set

M.R.C.C.T. = Map Records, Collin County, Texas

D.R.C.C.T. = Deed Records, Collin County, Texas

O.P.R.C.C.T. = Official Public Records, Collin County, Texas

WLE
30' North Texas Municipal Water District Easement Vol. 1270, Pg. 529, O.P.R.C.C.T.

GRAPHIC SCALE
100 0 60 100
1 inch = 100 ft.

North Texas Municipal Water District Notes (NTMWD) Notes:

The NTMWD easement restricts contruction of permanent structures such as foundations, walls, pools and permanent storage buildings. Items such as driveways, fences, sprinkler systems, and normal landscaping plans that encroach on the NTMWD easements are allowed. However, the NTMWD assumes no responsibility for damages resulting from the need to repair or maintain the NTMWD pipelines resulting from construction by the developer, contractor or owner will be the respoinsibility of the developer, contractor or owner.

Easement Curve Data

Curve No.	Radius	Arc Length	Delta	Chrd. Brng.	Chrd. Dist.
C1	325.00'	11.84'	02°05'14"	N00°25'19"E	11.84'
C2	325.00'	234.60'	41°21'32"	N22°08'42"E	229.54'
C3	275.00'	208.53'	43°26'46"	N21°06'05"E	203.57'
C4	325.00'	119.39'	21°02'50"	S32°18'03"W	118.72'
C5	275.00'	79.91'	16°38'58"	S34°29'59"W	79.63'
C6	150.00'	101.70'	38°50'50"	N70°58'11"W	99.77'

REVISED DATE: 01/04/2022

DATE: 08/24/2021	SCALE: 1" = 100'	DRAWN BY: C.S.H.	CHK'D. BY: M.B.A.	JOB NO.: 2021-0012

CITY APPROVAL CERTIFICATE

This plat is hereby approved by the Planning and Zoning Commission of the City of Lucas, Texas.

Chairman, Planning and Zoning Commission — Date

ATTEST:

Signature — Date

Name and Title — Date

The Director of Public Works of the City of Lucas, Texas hereby certifies that to the best of his/her knowledge or belief, this subdivision plat conforms to all requirements of the Code of Ordinance and with engineering construction standards and processes adopted by the City of Lucas, Texas as to which his/her approval is required.

Director of Public Works — Date

The Director of Planning and Community Development of the City of Lucas, Texas hereby certifies that to the best of his/her knowledge or belief, this subdivision plat conforms to all requirements of the Code of Ordinance, or as may have been amended or modified, as allowed, by the Planning and Zoning Commission as to which his/her approval is required.

Director of Planning and Community Development — Date

SURVEYOR'S CERTIFICATE

KNOW ALL MEN BY THESE PRESENTS:

THAT, I, Michael B. Arthur, do hereby certify that I have prepared this plat from an actual and accurate survey of the land and that the corner monuments shown thereon were properly placed under my personal supervision in accordance with the subdivision regulations of the City of Lucas, Texas.

Michael B. Arthur — Date
Registered Professional Land Surveyor
Texas Registration No. 5686

STATE OF TEXAS — REGISTERED — MICHAEL B. ARTHUR — 5686 — SURVEYOR

PRELIMINARY, THIS DOCUMENT SHALL NOT BE RECORDED FOR ANY PURPOSE AND SHALL NOT BE USED OR VIEWED OR RELIED UPON AS A FINAL SURVEY DOCUMENT.

STATE OF TEXAS §
COUNTY OF COLLIN §

BEFORE ME, the undersigned authority, a Notary Public in and for the State of Texas, on this date personally appeared Michael B. Arthur, known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that he executed the same for the purposes and consideration therein expressed and under oath stated that the statements in the foregoing certificate are true.

GIVEN UNDER MY HAND AND SEAL OF OFFICE this _____ day of _____, 2022.

Notary Public for and in the State of Texas
My Commission Expires:_____

Health Department Certification

I, as a representative of Collin County, Development Services, do hereby certify that the on-site sewage facilities described on this plat conform to the applicable OSSF laws of the State of Texas, that site evaluations have been submitted representing the site conditions in the area in which on-site sewage facilities are planned to be used.

Designated Representative for Collin County Developmental Services — Date

On-Site Sewage Facility Notes

1. (Due to the site evaluator's determination that all lots are predominately class IV soils)

2. All lots must utilize alternative type On-Site Sewage Facilities.

3. Must maintain state-mandated setback of all On-Site Sewage Facility components from any/all easements and drainage areas, water distribution lines, sharp breaks and/or creeks/rivers/ponds, etc. (Per State regulations). No variances will be granted for setbacks or for OSSF reduction.

4. Tree removal and/or grading for OSSF may be required on individual lots.

OWNER'S CERTIFICATE & DEDICATION

STATE OF TEXAS §
COUNTY OF COLLIN §

WHEREAS, James and Lee Irwin Family Limited Partnership is the owner of a tract of land, situated in the James Lovelady Survey, Abstract No. 538, in the City of Lucas, Collin County, Texas, and being all of that called 22.679 acre tract of land, described by deed to James and Lee Irwin Family Limited Partnership, as recorded under Document No. 20210301000398820, of the Official Public Records, Collin County, Texas (O.P.R.C.C.T.), said tract being more particularly described, as follows:

BEGINNING at a 1/2" iron rod with a yellow plastic cap stamped "RPLS 5686" found for the northwesterly corner of said 22.679 acre tract, same being the northeasterly corner of a tract of land, described by deed to Chris Koerner and Jessica Koerner, as recorded under Document No. 20160725000950450, O.P.R.C.C.T., same being in the southerly monumented line of W. Lucas Road (F.M. 1378);

THENCE North 89°18'07" East, along said southerly monumented line of W. Lucas Road, a distance of 739.61' to a 5/8" iron rod found for the northeasterly corner of said 22.679 acre tract, same being the northwesterly corner of a right-of-way dedication, dedicated by plat recorded in Vol. 2009, Pg. 224, O.P.R.C.C.T. (**LUCAS CHURCH ADDITION**);

THENCE South 01°17'52" East, along the common line between said 22.679 acre tract and said **LUCAS CHURCH ADDITION**, passing a 1/2" iron rod found for the northwesterly corner of Lot 1, Block A, of said **LUCAS CHURCH ADDITION**, at a distance of 15.00', and continuing in all, a total distance of 1283.67' to a point for corner, being the southeasterly corner of said 22.679 acre tract, same being in the northerly line of Lot 3, of **HI FLYIN' ACRES**, an addition to the City of Parker, as recorded in Volume J, Page 929, of the Map Records, Collin County, Texas (M.R.C.C.T.), from which a 5/8" iron rod found bears, South 00°34'004" East, a distance of 3.60';

THENCE South 89°22'42" West, along the southerly line of said 22.679 acre tract, same being along the northerly line of said Lot 3, passing a 1/2" iron rod found, at a distance of 212.71', for the northwesterly corner of said Lot 3, same being the northeasterly corner of Lot 2, of said **HI FLYIN' ACRES**, and continuing along the northerly line of said Lot 2, a total distance of 516.44' to a 1/2" iron rod with a yellow plastic cap stamped "RPLS 5686" set for the northwesterly corner of said Lot 2;

THENCE South 89°11'53" West, along the southerly line of said 22.679 acre tract, a distance of 283.67' to a 1" iron rod found for the southwesterly corner of said 22.679 acre tract, same being on the southerly side of Stinson Road, said corner also being the southeasterly corner of a tract of land, described by deed to Adagio Investments, Inc., as recorded under Document No. 20180111000049020, O.P.R.C.C.T.;

THENCE North 01°24'06" East, along the westerly line of said 22.679 acre, same being the easterly line of said Adagio Investments, LLC tract, passing a 1/2" iron rod found, at a distance of 44.70' and continuing a distance of 390.43' (total easterly line of said Adagio tract: 435.13') a 1/2" iron rod found for the northeasterly corner of said Adagio Investments, LLC tract, same being the southeasterly corner of the aforementioned Koerner tract, and continuing, in all, a total distance of 1284.29' to the **POINT OF BEGINNING** and containing 987,901 square feet or 22.679 acres of land, more or less.

NOW THEREFORE KNOW ALL MEN BY THESE PRESENTS

THAT JAMES AND LEE IRWIN FAMILY LIMITED PARTNERSHIP, does hereby bind themselves and their heirs, assigns and successors of title this plat designating the herein above described property as **LEE CREEK ESTATES, LOTS 1-10, BLOCK A**, an addition to the City of Lucas, Collin County, Texas, and does hereby dedicate to the public use forever, the streets, alleys and public use areas shown hereon; the easements, as shown, for mutual use and accommodation of the City of Lucas and all public utilities desiring to use or using same. All and any public utility and the City of Lucas shall have the right to remove and keep removed all or parts of any building, fences, shrubs, trees or other improvements or growths which in any way, endanger or interfere with the construction, maintenance or efficiency of it's respective systems on said easements; and the City of Lucas and all public utilities shall have the right to construct, reconstruct, inspect, patrol, maintain and add to or remove all or parts of it's respective systems without the necessity of, at anytime, procuring the permission of anyone. This plat is approved subject to all platting ordinances, rules, regulations and resolutions of the City of Lucas.

WITNESS MY HAND at Lucas, Texas, this _____ day of_____, 2022.

James Irwin – Agent

STATE OF TEXAS §
COUNTY OF COLLIN §

BEFORE ME, the undersigned, a Notary Public in and for the State of Texas, on this day personally appeared James Irwin, known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that the same is his act and deed in the capacity therein stated and for the purposes therein expressed.

WITNESS MY HAND AND SEAL OF OFFICE on this, the _____ day of _____, 2022.

NOTARY PUBLIC in and for the State of Texas.

General Notes:

1. According to the Flood Insurance Rate Map of Collin County, Texas, Map No. 48085C0405J, Map Revised June 02, 2009, the herein described property is located in Zone "X", described by said map to be, "areas determined to be outside the 0.2% annual chance floodplain". This flood statement does not imply that the property and/or the structure thereon will be free from flooding or flood damage. On rare occasions, greater floods can and will occur and flood heights may be increased by man-made or natural causes. This flood statement shall not create liability on the part of the surveyor in any way.

2. The surveyor has relied on the herein described subject deed, recorded under Document No. 20210301000398820, O.P.R.C.C.T. with regard to any easements, restrictions, or rights-of-way affecting the herein described Property. No additional research regarding said easements, restrictions or rights-of-way has been performed by the surveyor.

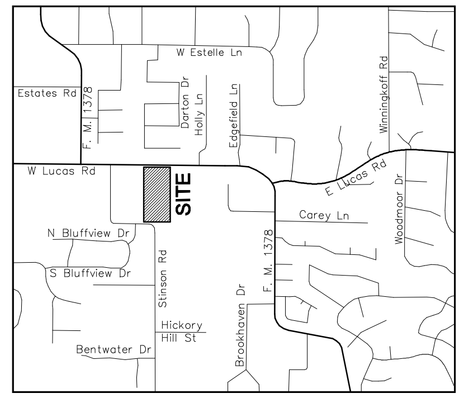
3. Bearings are based on the Texas State Plane Coordinate System, North Central Zone (4202), NAD83. Surface values shown can be converted to grid by dividing by the combined scale factor of 0.9998443372, at base point 0,0..

4. Property owners to maintain property including drainage and utility easements to the edge of pavement.

5. Selling a portion of any lot within this addition by metes and bounds is a violation of state law and city ordinance and is subject to fines and withholding of utilities and building permits.

6. A 1/2" iron rod with a yellow plastic cap stamped "RPLS 5686" will be set at all boundary corners, lot corners, points of curvature, points of tangency and angle points on public rights-of-way, whenever possible, unless otherwise shown or noted in this drawing after all construction for this subdivision has been completed.

Vicinity Map
(not to scale)



Owner:
James and Lee Irwin
Family Limited Partnership
15740 SH 114
Justin, Texas 76247

Engineer:
Dynamic Engineering Consultants, PC
714 S. Greenville Avenue, Suite 100
City of Allen, Texas 75002
(972) 534-2100 ext. 4101
Contact: Josh Edge, PE

Surveyor:
North Texas Surveying, LLC
1010 West University
McKinney, Texas 75069
(469) 424-2074
www.northtexassurveying.com
Firm Registration No. 10074200
Contact: Chad Holcomb

PRELIMINARY PLAT

LEE CREEK ESTATES

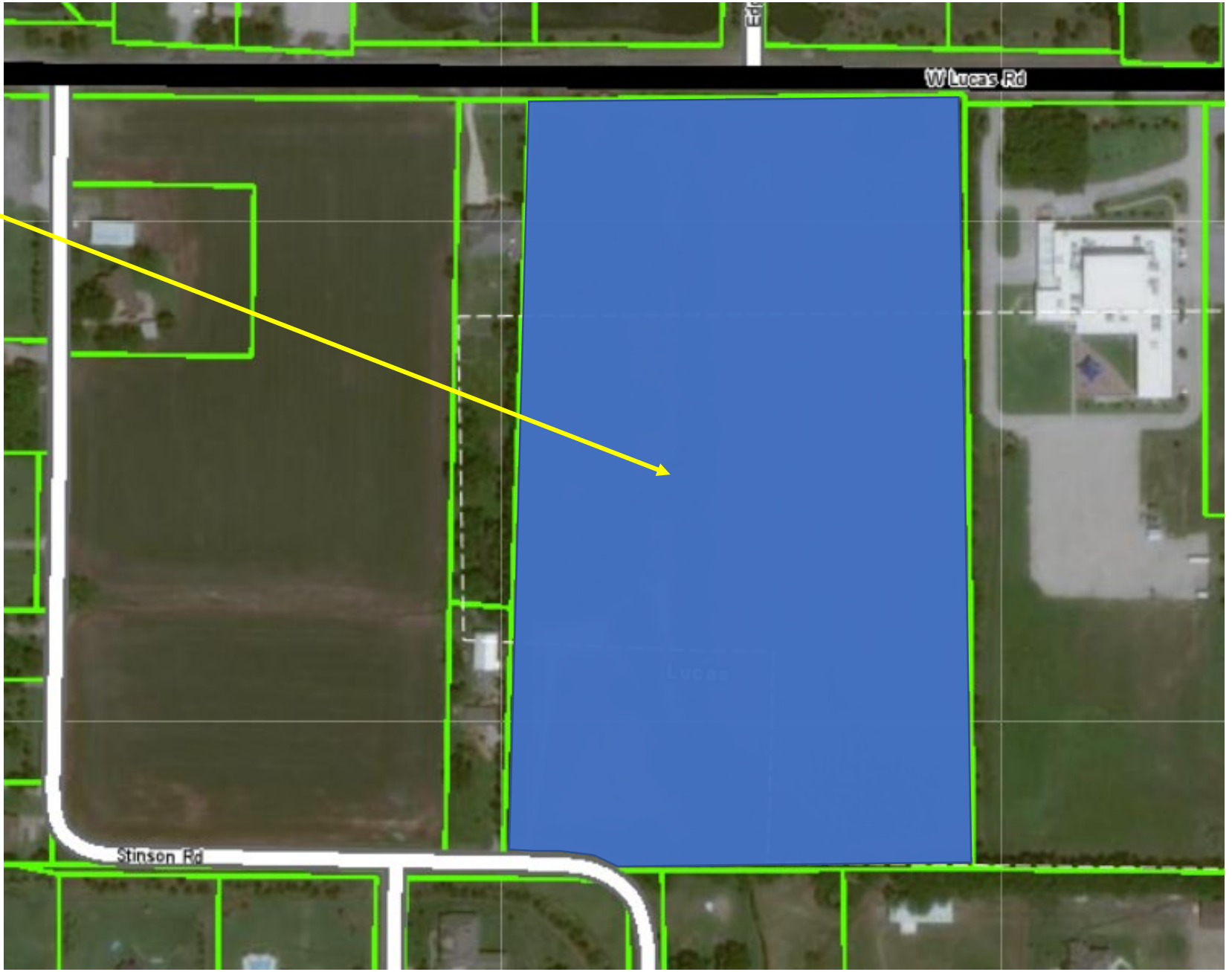
LOTS 1-10, BLOCK A
10 RESIDENTIAL LOTS
Current Zoning:
R2- Single Family Residential
2 Acre Lots

BEING
22.679 ACRES
SITUATED IN THE
JAMES LOVELADY SURVEY
ABSTRACT NO. 538

CITY OF LUCAS, COLLIN COUNTY, TEXAS

Location Map

Lee Creek Estates



DEVELOPMENT APPLICATION
City of Lucas, Texas

NAME OF SUBDIVISION AND/OR PROJECT: Lee Creek Estates

ITEM SUBMITTED	APPLICATION FEE
Site Plan $300 + $10 per acre (i.e. $500 for a 20 acre site plan)	$520
Tree Survey/Conservation Plan	N/A
Tree Removal & Site Clearing Permit $250	N/A
Architectural Plan $250 + $50 for any reviews or presentations of amended plans	N/A
Landscape Plan $200 + $50 for any reviews or presentations of amended plans	N/A
Park Site Dedication $1,000 per lot or land dedication per Lucas City Ordinance Sec. 10.03.122	N/A
TOTAL FEES SUBMITTED	$520

Collin County Appraisal District Short Account Number(s): 2665871

Physical Location of Property: W Lucas Rd. Lucas, TX 75002
(Address and General Location – approximate distance to nearest existing street corner)

Brief Legal Description of Property (must also attach accurate metes and bounds description):
James Lovejoy Survey, Abstract Number 538, Tract 21, 22.679 Acres
(Survey/Abstract No. and Tracts; or platted Subdivision Name with Lots/Block)

Acreage: 22.679 Existing # of Lots/Tracts: 1 Existing Zoning: R2

OWNER'S NAME: James Irwin Contact Phone: 903-517-9452

Applicant/Contact Person: Andrea Bedell Title: _____

Company Name: Bedell Properties

Street/Mailing Address: 15740 Highway 14

City: Justin State: TX Zip code: 76247

Phone: (903) 517-9452 Fax: (____) _____ Email Address: bedellproperties@gmail.com

ENGINEER/REPRESENTATIVE'S NAME: Josh Edge

Contact Person: Josh T. Edge, P.E. Title: Texas Regional Manager/Principal

Street/Mailing Address: 714 S. Greenville Ave. Dynamic Engineering Consultants, PC

City: Allen State: TX Zip code: 75002

Phone: (972) 534-2100 Fax: (____) _____ Email Address: JEdge@dynamicec.com

NAME OF SUBDIVISION and/or PROJECT: Lee Creek

**READ BEFORE SIGNING BELOW: If there is more than one property owner, complete a separate sheet with the same wording as below. The City requires all original signatures. If applicant is other than the property owner, a "Power of Attorney" with original, notarized signatures is required. (Notaries are available upon submittal)

ALL APPLICATIONS MUST BE COMPLETE, ACCOMPANIED BY THE APPLICABLE CHECKLIST AND TAX CERTIFICATE SHOWING TAXES PAID, BEFORE THEY WILL BE SCHEDULED FOR P&Z AGENDA. It is the applicant's responsibility to be familiar with, and to comply with, all City submittal requirements (in the Zoning & Subdivision Ordinances, and any separate submittal policies, requirements and/or checklists that may be required from City staff), including the number of plans to be submitted, application fees, etc. Please contact City staff in advance for submittal requirements. [Drawings will not be returned to applicant.]

ALL PARCELS/PROPERTIES MUST MATCH IN ACREAGE ALL OTHER DOCUMENTS SUBMITTED WITH NO AMBIGUITY.

SUBMISSIONS: Failure to submit all materials to the City with this application will result in delays scheduling the agenda date.

NOTICE OF PUBLIC RECORDS. The submission of plans/drawings/etc. with this application makes such items public record, and the applicant understands that these items may be viewed by the general public. Unless the applicant expressly states otherwise in writing, submission of this application (with associated plans/drawings/etc.) will be considered consent by the applicant that the general public may view and/or reproduce (i.e., copy) such documents.

Applicant agrees to pay any and all monies due to the City including but not limited to park pro rata fee, Tree Removal Permit fee, 3% of construction cost (developer to provide contracts for verification) and including but not limited to other fees that may be required prior to final plat approval.

STATE OF TEXAS }
COUNTY OF COLLIN }

BEFORE ME, a Notary Public, on this day personally appeared James C Irwin the undersigned who, under oath, stated the following: "I hereby certify that I am the owner, or duly authorized agent of the owner, (proof attached) for the purposes of this application; that all information submitted herein is true and correct. I understand that submitting this application does not constitute approval, and incomplete applications will result in delays and possible denial."

James C Irwin

**Owner / Agent *(circle one)*

SUBSCRIBED AND SWORN TO before me, this the 27th day of October, 2021

JAIME FRY
Notary Public, State of Texas
Comm. Expires 01-09-2023
Notary ID 131848321

Notary Public in and for the State of Texas: [signature]

Official Use Only:	Action Taken	
Planning & Zoning:		Date:
City Council:		Date:
Applicant Withdrew: Yes or No	Applicant Made a Written Withdrawal: Yes or No	Date:

PLATTING APPLICATION

- Applicant agrees to pay any and all monies due to the City including but not limited to Park Site fee, Tree Removal Permit fee, 3% of Construction cost (developer to provide contracts for verification) and including but not limited to other fees that may be required prior to final plat approval.
- Maintenance Bond for City Improvements, 2 year – 10% Bond to be verified by submitting contract.
- Construction as-built record drawings (mylar)
- Engineering construction test reports.
- Walk-through with Public Works personnel completed with satisfactory outcome.
- HOA (covenants, conditions & restrictions) documentation approved by City Attorney before submittal to Planning & Zoning.

By signing this application, staff is granted access to your property to perform work related to your case. I waive the statutory time limits in accordance with Texas Local Government Code, Section 212.

STATE OF TEXAS }
COUNTY OF COLLIN }

BEFORE ME, a Notary Public, on this day personally appeared James C. Irwin the undersigned applicant, who, under oath, stated the following: "I hereby certify that I am the owner, or duly authorized agent of the owner, (**proof must be attached, e.g. "Power of Attorney**) for the purposes of this application; that all information submitted herein is true and correct. I understand that submitting this application does not constitute approval, and incomplete applications will result in delays and possible denial."

Notary Public
JAIME FRY
Notary Public, State of Texas
Comm. Expires 01-09-2023
Notary ID 131848321

James C. Irwin
Owner / Agent (*circle one*)

SUBSCRIBED AND SWORN TO before me, this the 27th day of October, 2021

Notary Public in and for the State of Texas: Jaime Fry

Official Use Only:	
Planning & Zoning:	Date:
City Council:	Date:
Applicant Withdrew: Yes or No	Date:
Applicant Made a Written Withdrawal: Yes or No	Date:

PLATTING APPLICATION

Physical Location of Property: W Lucas Rd. Lucas, TX 75002
(Address and general location – approximate distance to nearest existing street intersection)

Legal Description of Property: James Lovejoy Survey, Abstract Number 538, Tract 21
(Survey/ Abstract Number and Tracts/Platted Subdivision Name with Lots/Block – Must attach metes and bounds description)

Comprehensive Zoning Designation(s): R2- Single-Family Residential District

Existing Zoning Designation(s): R2

Description of Project Use: Single-Family Residential Subdivision

Acreage: 22.679 Acres | Existing # of Lots/Tracts: 1

OWNERS NAME: James Irwin — Contact Number: 903-517-9452
Applicant/Contact Person Andrea Bedell — Title:
Company Name Bedell Properties
Street Address 15740 Highway 14
Mailing Address 15740 Highway 14, Justin, TX 76247
Phone: 903-517-9452 Fax: Email: bedellproperties@gmail.com

OWNERS NAME: — Contact Number:
Applicant/Contact Person — Title:
Company Name
Street Address
Mailing Address
Phone: Fax: Email:

ENGINEER REPRESENTATIVE: Josh T. Edge, P.E. — Contact Number: 972-534-2100
Applicant/Contact Person Josh T. Edge, P.E. — Title: Texas Regional Manager/Principal
Company Name Dynamic Engineering Consultants, PC
Street Address 714 S. Greenville Ave.
Mailing Address 714 S. Greenville Ave., Allen, TX 75002
Phone: 972-534-2100 Fax: Email: JEdge@dynamicec.com

Read before signing below: If there is more than one property owner complete a separate sheet with the same wording as below. The City requires all original signatures. If applicant is other than the property owner a "Power of Attorney" with original, notarized signatures are required. (notaries are available)

ITEMS REQUIRED PRIOR TO FINAL PLAT APPROVAL:

ALL APPLICATIONS MUST BE COMPLETE, ACCOMPANIED BY THE APPLICABLE CHECKLIST AND TAX CERTIFICATE SHOWING TAXES PAID BEFORE BEING SCHEDULED ON THE P&Z AGENDA. It is the applicant's responsibility to be familiar with, and to comply with, all City submittal requirements (in the Zoning & Subdivision Ordinances, and any separate submittal policies, requirements and/or checklists that may be required from City staff), including the number of plans to be submitted, application fees, etc. Please contact City staff in advance for submittal requirements. Drawings will not be returned to applicant.

ALL PARCELS/PROPERTIES MUST MATCH IN ACREAGE ALL OTHER DOCUMENTS SUBMITTED WITH NO AMBIGUITY.

SUBMISSIONS: Failure to submit all materials to the City with this application will result in delays scheduling the agenda date.

NOTICE OF PUBLIC RECORDS: The submission of plans/drawings with this application makes such items public record, and the applicant understands that these items may be viewed by the public unless they are copyrighted.

Site Plan Minimum Requirements

Project Name Lee Creek Estates Subdivision **Preparer** Joshua T Edge, PE - Dynamic Engineering

This checklist is provided to assist you in addressing the minimum requirements for Site Plan submission. An application is incomplete unless all applicable information noted below is submitted to the Development Services Department. Indicate that all information is included on the submitted plans by checking the box next to the required information. Checking the box certifies to the City that you have completely and accurately addressed the issue. If not applicable, indicate an "N/A" next to the box. Return this completed form at the time of application submittal.

If an exception or modification to the regulations is requested, the reason and/or request for each shall be provided directly on the plan and on a separate sheet on letterhead with sufficient details as to allow a determination by the appropriate approval body. Additional information may be required. Reference the specific requirement/s.

Plans are expected to be submitted complete and accurate in all detail as shown by the checklist. Should plans be determined to be incomplete, they may either be returned to the applicant without further review or marked up with needed changes, depending on the amount/magnitude of changes or corrections needed. Please keep in mind that changes/additions to previously incomplete or inaccurate plans may generate additional comments at re-submittal of corrected Plans. Therefore, diligence to the initial submittal is paramount to expediting the review process.

Included

- ✓ Site boundary is indicated by a heavy solid line intermittent with 2 dash lines, dimensioned with bearings and distances; indicate and label lot lines, setback lines, and distance to the nearest cross street.
- ✓ Site location/vicinity map clearly showing the location of the subject property with cross streets is provided. Indicate scale or NTS and provide north arrow.
- ✓ A north arrow is provided with drawing oriented such as that north is located to the top or left side of drawing sheet.
- ✓ A written and bar scale is provided.
- ✓ A title block is in the lower right corner that includes large, boldly printed "SITE PLAN", owner and engineer's names, addresses and phone numbers, subdivision name, lot number/s, block number or letter, original submission date, and a log of resubmittal/revision dates since submitted to the City.
- N/A Tree masses are clouded with accurate canopy widths shown to determine critical root zone where located within close proximity to existing or proposed pavement.
- N/A Flood plain boundary is shown and indicates F.I.R.M. Community panel number and date, and flow line of drainage ways and creeks, as applicable.
- ✓ Existing topography lines are shown with a light dashed line and proposed contours are shown by a medium weight solid line. Topography is shown at minimum five (5) foot contours referenced to sea level city datum. Spot elevations and additional contours may be required in certain areas depending on topography.
- N/A Accurately located, labeled and dimensioned footprint of proposed structure(s) is/are shown by a solid heavy line.

N/A Accurately located, labeled and dimensioned footprint of existing structure(s) to remain is/are shown by a heavy dashed line.

N/A Accurately located and labeled footprint of structure(s) proposed for demolition is/are shown by a light dashed line. Structures to be demolished are clearly labeled/ identified.

— Accurately located footprint of nonresidential structure(s) on abutting properties is/are shown by a light, solid line.

✓ Adjacent property lines within 500 feet of the subject property lines are shown by a light dashed line.

✓ Adjacent zoning and land use (e.g. bank with drive-thru, office building, undeveloped etc.) within 500 feet of the property line is indicated.

✓ Adjacent property owner(s), or subdivision name, with lot, block and recording information, is shown.

N/A Finished floor elevation of existing and/or proposed structures is referenced to sea level datum.

✓ Full width of streets and alley rights-of-way with centerlines and backs of curbs or paving edges within 200 feet of the property line are dimensioned and street name or use is labeled.

✓ Driveways within 200 feet of the property line:

- Are accurately located and dimensioned.
- Distances to the nearest on-site driveway and/or off-site driveway is accurately located and dimensioned as measured from the centerlines.
- Distance to the nearest street is shown as measured from the end of curb-return radius of the adjacent street to the driveway centerline.
- Typical radii are shown.

N/A Drive-thru lanes, menu board location, pick-up window/s, maneuvering area, stacking lanes and escape lanes are indicated and dimensioned.

N/A Sidewalks and barrier-free ramps (BFR) within 200 feet of and on the subject property are shown, dimensioned and labeled.

N/A Off-site streets and roads:

- Existing and proposed roadways with medians and median openings adjacent to and within 200 feet of the project site are shown and dimensioned.
- Medians, median openings with associated left- turn lanes, continuous left turn lanes, transition and stacking lengths are shown and dimensioned within 200 feet of the project site.
- Existing, proposed, and required acceleration/deceleration lanes within 200 feet of the project site are shown dimensioned, stacking length indicated, and right-of-way dedication is indicated as applicable.

N/A All parking spaces are shown, group numbered, and typical dimensions are provided. Indicate required two-foot overhang, as applicable.

N/A Handicapped parking spaces and barrier-free access points are shown, dimensioned, and labeled.

N/A Loading and maneuvering areas are indicated, labeled, and dimensioned. Loading area screening method is indicated and labeled.

N/A Dumpster and/or compactor locations and screening methods are shown. Indicate screening materials and height for all sides. Screening material is to match structure façade with enclosure having solid metal gates. Specs and sketch available from staff.

✓ Paving materials, boundaries and type are indicated.

— Access easements are accurately located/ tied down, labeled and dimensioned.

N/A Off-site parking is shown and dimensioned from the off-site parking area to the structure or use as applicable. A parking easement or shared parking agreement is required and is provided in draft format.

N/A Fire lanes are shown and dimensioned at a minimum of 24 feet in width, with internal radii of not less than 20 feet. Label and use an approximate 20 percent shade for fire lanes to differentiate from other paving. Ensure that required labeling and dimensioning is readable through shading.

✓ Proposed dedications and reservations of land for public use including, but not limited to, rights-of-way, easements, park land, open space, drainage ways, floodplains and facility sites are accurately located, dimensioned and labeled.

N/A Screening walls are shown with dimensions and materials. An inset is provided that shows the wall details and column placement as applicable. Plans for masonry walls are to be signed and sealed by a structural engineer and approved by the City Engineer. Channeled or slip-panel/pre-cast walls are prohibited.

N/A The location of living screens are shown and labeled. Details of a living screen are provided on the Landscape Plan indicating plant species/name, height at planting, and spacing.

N/A A lighting plan that shows location by fixture type is included. A lighting data chart is used to reference fixture type (i.e. pole or wall pack), maximum height, those requiring shielding, those requiring skirting, wattage and foot-candles of each fixture. No lighting source (i.e. bulb, reflector, etc.) is allowed to be visible from an adjacent property or public street.

✓ Existing and proposed water and sanitary sewer lines, storm sewer pipe, with sizes, valves, fire hydrants, manholes, and other utility structures on-site or immediately adjacent to the site are shown and labeled.

✓ Boundaries of detention areas are located. Indicate above and/or below ground detention.

N/A Monument signage location is indicated. Details of construction materials and architecture are shown on required Building Elevation/Façade Plan. Color, type and texture are to match that of the building.

N/A Communication towers are shown and a fall distance/collapse zone is indicated.

N/A Provide Site Data Summary Table that references distinct numbers for each lot and all buildings (existing and proposed) that includes, where applicable:

- Existing Zoning
- Proposed use(s) for each structure
- Total lot area less right-of-way dedications by square feet and acres
- Square footage of building(s)
- Building height (stories and feet)
- Percent of lot coverage (building footprint square footage/lot square footage).
- For apartment developments, number of living units broken down by number of bedrooms and minimum square footage for each dwelling unit.
- Parking required by use with applicable parking ratios indicated for each use
- Parking provided indicated
- Handicap parking required as per Code of Ordinances and TAS/ADA requirements
- List of exceptions and/or variance/s requested or previously granted, including dates and approving authority

N/A Improvements are proposed in TXDOT Right-of-Way and one (1) full set of civil engineering plans has been submitted to: Mohammad Khoshkar, TXDot Office, P.O.Box 90 McKinney, Texas 75069-0090, phone (972)547-2237

Item No. 03

City of Lucas
Planning and Zoning Agenda Request
January 13, 2022

Requester: Development Services Director Joe Hilbourn

Agenda Item

Consider the request by Stephen DiNapoli for an amended preliminary plat for a parcel of land, being 41.512 acres, part of the John Thompson Survey, Abstract 893 and the G. Ducase Survey, Abstract 270 located on the northeast side of Winningkoff Road and north of Christian Lane, more commonly known as 950 Winningkoff Road, 970 Winningkoff Road, and 905 Christian Lane, Lucas, Texas, (Barratt Lake Estates).

Background Information

The Planning and Zoning Commission approved the preliminary plat on December 9, 2021. The applicant has submitted an amended plat with one less lot, and adding a cul-de-sac named Cowboy Court.

The City's Code of Ordinances, Section 10.03.042, Amendments to preliminary plat, states the following:

(a) At any time following the approval of a preliminary plat, and before the lapse of such approval, the owner may request an amendment. No amendment may be approved pursuant to this section which amends or changes any condition, regulation, or development required by a planned development ordinance or specific use permit which governs the development of such subdivision. The rerouting of streets, addition or deletion of alleys, or addition or deletion of more than ten percent (10%) of the approved number of lots shall be considered a major amendment. The adjustment of street and alley alignments, lengths, and paving details; the addition or deletion of lots within ten percent (10%) of the approved number and the adjustment of lot lines shall be considered minor amendments. (Ordinance 2010-11-00668, sec. 1, adopted 11/4/10)

(b) The director of development services may approve or disapprove a minor amendment. Disapproval may be appealed to the commission. Major amendments may be approved by the commission at a public meeting in accordance with the same requirements for the approval of a preliminary plat. (Ordinance 2016-01-00827 adopted 1/7/16)

(c) Approval. The commission shall approve, conditionally approve or disapprove any proposed major amendment and may make any modifications in the terms and conditions of preliminary plat approval reasonably related to the proposed amendment.

Attachments/Supporting Documentation

1. Amended Preliminary plat
2. Location Map

Item No. 03

City of Lucas
Planning and Zoning Agenda Request
January 13, 2022

Budget/Financial Impact

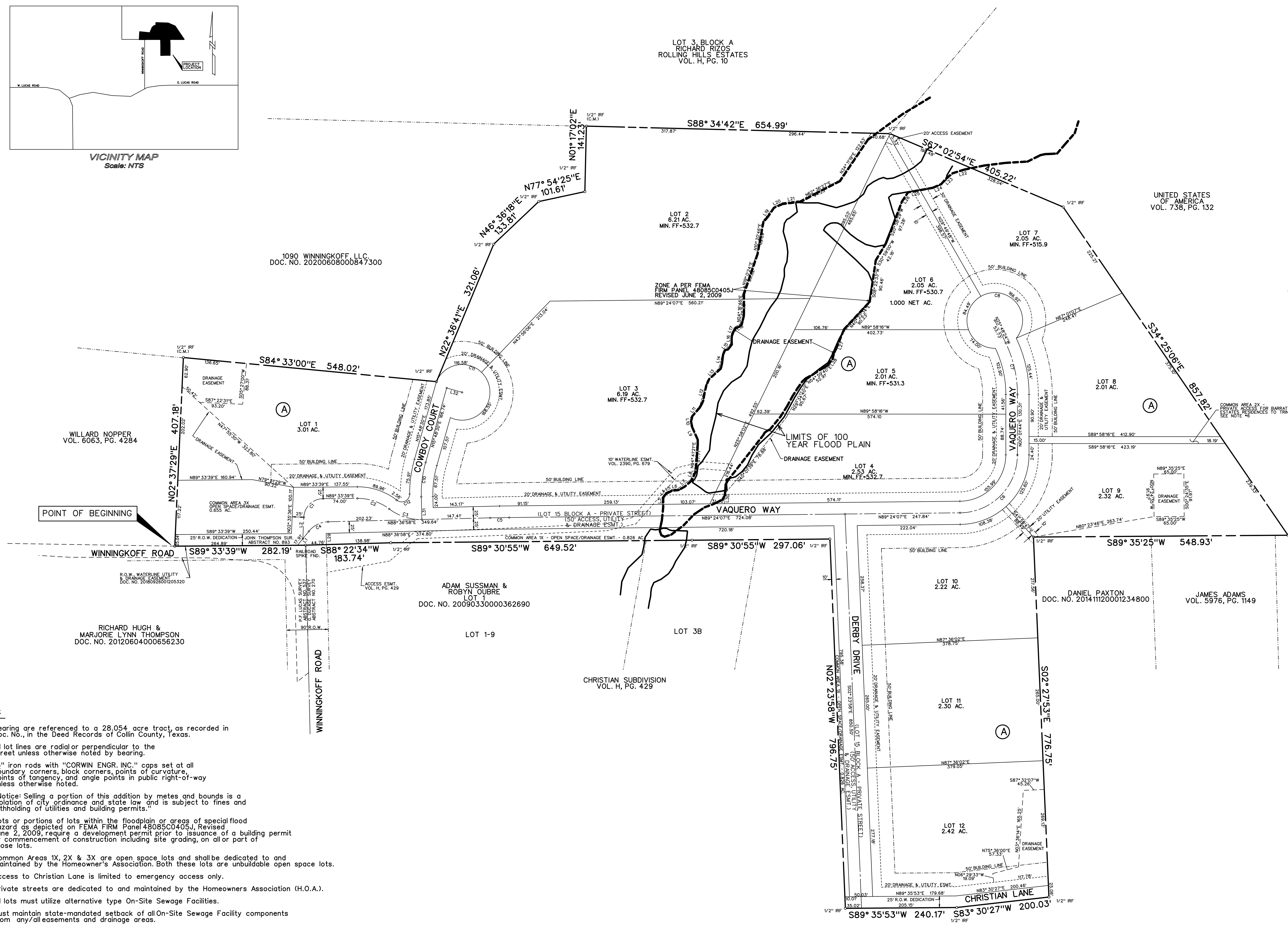
NA

Recommendation

Staff recommends approval of the amended preliminary plat.

Motion

I make a motion to approve/deny the request for an amended preliminary plat for a parcel of land, being 41.512 acres, part of the John Thompson Survey, Abstract 893 and the G. Ducase Survey, Abstract 270 located on the northeast side of Winningkoff Road and north of Christian Lane, more commonly known as 950 Winningkoff Road, 970 Winningkoff Road, and 905 Christian Lane, Lucas, Texas, (Barratt Lake Estates).



NOTES

1. Bearing are referenced to a 28.054 acre tract, as recorded in Doc. No., in the Deed Records of Collin County, Texas.
2. All lot lines are radial or perpendicular to the street unless otherwise noted by bearing.
3. ½" iron rods with "CORWIN ENGR. INC." caps set at all boundary corners, block corners, points of curvature, points of tangency, and angle points in public right-of-way unless otherwise noted.
4. "Notice: Selling a portion of this addition by metes and bounds is a violation of city ordinance and state law and is subject to fines and withholding of utilities and building permits."
5. Lots or portions of lots within the floodplain or areas of special flood hazard as depicted on FEMA FIRM Panel 48085C0405J, Revised June 2, 2009, require a development permit prior to issuance of a building permit or commencement of construction including site grading, on all or part of those lots.
6. Common Areas 1X, 2X & 3X are open space lots and shall be dedicated to and maintained by the Homeowner's Association. Both these lots are unbuildable open space lots.
7. Access to Christian Lane is limited to emergency access only.
8. Private streets are dedicated to and maintained by the Homeowners Association (H.O.A.).
9. All lots must utilize alternative type On-Site Sewage Facilities.
10. Must maintain state-mandated setback of all On-Site Sewage Facility components from any/all easements and drainage areas.
11. Final grading, per the grading plan, will be required prior to installation/operation of On-Site Sewage Facilities.
12. Individual site evaluations and OSSF design plans must be submitted to and approved by Collin County for each lot prior to construction of any OSSF system.
13. All drainage easements shall be maintained by th HOA.
14. Only lots in Barratt Lakes Estates shall have access to Common Area 1X.

CURVE TABLE

CURVE NO.	DELTA	RADIUS	LENGTH	CHORD	BEARING
C1.	86°58′03″	42.00′	63.75′	57.80′	N46°04′37″E
C2.	37°37′21″	112.00′	73.54′	73.23′	S71°37′41″E
C3.	38°34′01″	112.00′	75.39′	73.97′	S72°06′01″E
C4.	49°46′50″	55.00′	47.79′	46.30′	N63°43′33″E
C5.	00°47′09″	2988.00′	40.99′	40.99′	N89°00′33″E
C6.	89°22′23″	125.00′	194.98′	175.81′	N44°42′56″E
C7.	25°50′08″	255.00′	114.98′	114.01′	N12°53′20″W
C8.	49°14′56″	60.00′	325.42′	50.00′	N64°11′41″E
C9.	00°56′41″	3037.00′	50.07′	50.07′	N89°05′19″E
C10.	17°11′31″	250.00′	75.01′	74.73′	N07°12′44″E
C11.	87°37′05″	60.00′	285.24′	83.07′	S21°11′51″E
C12.	125°30′29″	17.00′	37.24′	30.23′	N62°44′46″E

LINE TABLE

LINE NO.	BEARING	DISTANCE
1.	N 38°50′08″ E	38.62′
2.	N 02°35′36″ E	46.40′
3.	N 00°35′53″ W	14.71′
4.	N 36°17′06″ E	13.56′
5.	N 65°12′33″ E	15.96′
6.	N 83°24′48″ E	11.67′
7.	N 54°37′06″ E	33.91′
8.	N 24°35′03″ E	20.36′
9.	N 25°05′09″ W	31.62′
10.	N 03°58′11″ W	18.62′
11.	N 37°53′36″ E	34.01′
12.	N 16°05′48″ E	55.48′
13.	N 43°44′22″ E	36.93′
14.	N 13°51′21″ E	36.80′
15.	N 43°51′15″ E	23.69′
16.	N 04°07′10″ E	22.05′
17.	N 26°32′55″ E	14.62′
18.	N 56°53′47″ E	15.60′
19.	N 37°09′54″ E	39.17′
20.	N 64°20′05″ E	20.99′
21.	N 82°43′33″ E	39.27′
22.	S 73°02′27″ W	41.72′
23.	S 46°40′43″ W	33.67′
24.	S 65°33′05″ W	20.21′
25.	S 80°56′51″ W	54.60′
26.	S 33°39′31″ W	23.41′
27.	S 21°41′45″ W	68.09′
28.	S 36°13′21″ W	16.24′
29.	N 01°18′48″ W	24.08′
30.	S 06°31′35″ W	23.60′
31.	N 01°23′02″ W	49.00′
32.	S 74°11′30″ E	34.58′

FOR REVIEW PURPOSES ONLY

TOTAL RESIDENTIAL LOTS 12
TOTAL ACRES 41.512

FINAL PLAT

BARRATT LAKE ESTATES

LOTS 1-12 BLOCK A
OUT OF THE
JOHN THOMPSON SURVEY ABSTRACT NO. 893
G. DUCASE SURVEY, ABSTRACT NO. 270
IN THE
CITY OF LUCAS
COLLIN COUNTY, TEXAS
ZONING: R-2

OWNER
BARRATT LAKE ESTATES, LLC.
PO BOX 863264
PLANO, TEXAS 75086

PREPARED BY
CORWIN ENGINEERING, INC.
TBPE FIRM #5951
TBPLS #10031700
200 W. BELMONT, SUITE E
ALLEN, TEXAS 75013
972-396-1200

JANUARY 2022 SCALE: 1"=100'

SHEET 1 OF 2

DEDICATION

NOW THEREFORE, KNOW ALL MEN BY THESE PRESENTS:

That BARRATT LAKE ESTATES, LLC., Owners, do hereby bind themselves and their heirs, assignees and successors of title this plat designating the hereinabove described property as BARRATT LAKE ESTATES, an addition to the City of Lucas, and do hereby dedicate to the public use forever the streets, alleys, and right-of-way easements shown thereon, and do hereby reserve the easement strips shown on this plat for the mutual use and accommodation of garbage collection agencies and all public utilities desiring to use or using same. Any public utility shall have the right to remove and keep removed all or part of any buildings, fences, trees, shrubs, or other improvements or growths that in any way endanger or interfere with the construction, maintenance or efficiency of its respective systems on any of these easements strips, and any public utility shall at all times have the right of ingress and egress to and from and upon the said easement strips for the purpose of constructing, reconstructing, inspecting, patrolling, without the necessity at any time of procuring the permission of anyone. Additionally, BARRATT LAKE ESTATES, LLC certifies that BARRATT LAKE ESTATES, LLC is the sole owners of the dedicated property and that no other's interest are attached to this property unless otherwise indicated on the required Mortgage Holder Certification that is included on this plat. This plat approved subject to all platting ordinances, rules, regulations and resolutions of the City of Lucas, Texas.

-Every owner of fee simple title to every individual lot within the subdivision shall be a member of the homeowners' association;

-The homeowners' association shall have the authority to collect membership fees;

-As applicable as it pertains to conditions shown herein, the homeowners' association shall be responsible for the maintenance of all common areas, screening walls, landscaped areas, private streets and alleys.

-The homeowners' association shall grant the City the right of access to any areas to abate any nuisances on such areas and attach a lien upon each individual lot for the prorated costs of abatement.

-The homeowners' association shall indemnify and hold the City harmless from any and all costs, expenses, suits, demands, liabilities, damages, or otherwise, including attorney fees and costs of suit, in connection with the City's maintenance of common areas.

-The homeowners' association shall, where additional rights-of-way has been dedicated for the purpose of providing landscaping, additional areas for sidewalks, walls or other amenities, enter into a license agreement with the City and shall be responsible for the installation and maintenance of all landscape areas in the public rights-of-way.

EXECUTED this the_____ day of_____, 2022.

_____
Stephen Dinapoli
President

THE STATE OF TEXAS
COUNTY OF COLLIN

BEFORE ME, the undersigned, a Notary Public for the State of Texas, on this day personally appeared STEPHEN DINAPOLI, known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that the same is his act and deed in the capacity therein stated and for the purposes and considerations therein expressed.

WITNESS MY HAND AND SEAL OF OFFICE, this the_____ day of_____, 2022.

_____
NOTARY PUBLIC, STATE OF TEXAS

This plat is hereby approved by the Planning and Zoning Commission of the City of Lucas, Texas

_____ _____
Chairman, Planning and Zoning Commission Date

ATTEST:

_____ _____
Signature Date

_____
Name & Title

The Director of Public Works of the City of Lucas, Texas hereby certifies that to the best of his/her knowledge or belief, this subdivision plat conforms to all requirements of the Code of Ordinances and with engineering construction standards and processes adopted by the City of Lucas, Texas as to which his/her approval is required.

_____ _____
Director of Public Works Date

The Development Services Director of the City of Lucas, Texas hereby certifies that to the best of his/her knowledge or belief, this subdivision plat conforms to all requirements of the Code of Ordinances, or as may have been amended or modified, as allowed, by the Planning and Zoning Commission as to which his/her approval is required.

_____ _____
Development Services Director Date

LEGAL DESCRIPTION

WHEREAS, BARRATT LAKE ESTATES, LLC., is the owner of a tract of land situated in the John Thompson Survey, Abstract No. 893 and G. Ducase Survey, Abstract No. 270, being all of a 14.985 acre tract and a 14.088 acre tract, as described in Doc. No. 20210114000088080 in the Deed Records of Collin County, Texas, and a 4.417 acre tract, as described in 20210107000041130 in said Deed Records and a 8.0 acre tract, as described in Doc. No. in said Deed Records in being more particularly described as follows:

BEGINNING, at a PK nail set at the southwest corner of said 4.417 acre tract being in Winningkoff Road (Variable R.O.W.);

THENCE, North 02° 37'29" East, along the west line of said 4.417 acre tract, for a distance of 407.18 feet, to a 1/2 inch iron rod found at the northwest corner of said 4.417 acre tract;

THENCE, South 84° 33'00" East, along the north line of said 4.417 acre tract, for a distance of 548.02 feet, to a 1/2 inch iron rod found at the northeast corner of said 4.417 acre tract and being in the west line of said 14.088 acre tract;

THENCE, North 22° 36'41" East, along the west line of said 14.088 acre tract, for a distance of 321.06 feet, to a 1/2 inch iron rod found;

THENCE, North 46° 36'18" East, continuing along said west line, for a distance of 133.81 feet, to a 1/2 inch iron rod found;

THENCE, North 77° 54'25" East, continuing along said west line, for a distance of 101.61 feet, to a 1/2 inch iron rod found;

TEHNCE, North 01° 17'02" East, continuing along said west line, for a distance of 141.23 feet, to a 1/2 inch iron rod found at the northwest corner of said 14.088 acre tract;

THENCE, South 88° 34'42" East, along the north line of said 14.088 acre tract, for a distance of 654.99 feet, to a 1/2 inch iron rod found at the northeast corner of said 14.088 acre tract and the northwest corner of said 14.985 acre tract;

THENCE, South 67° 02'54" East, along the north line of said 14.985 acre tract, for a distance of 405.22 feet, to a 1/2 inch iron rod found;

THENCE, South 34° 25'06" East, continuing along said north line, for a distance of 857.82 feet, to the most easterly corner of said 14.985 acre tract, to a 1/2 inch iron rod found;

THENCE, South 89° 35'25" West, along the south line of said 14.985 acre tract, for a distance of 548.93 feet, to a 1/2 inch iron rod found at the northeast corner of said 8.0 acre tract;

THENCE, South 02° 27'53" East, departing said south line and with the east line of said 8.0 acre tract, for a distance of 776.75 feet, to a 1/2 inch iron rod found at the southeast corner of said 8.0 acre tract;

THENCE, South 83° 30'27" West, along the south line of said 8.0 acre tract, for a distance of 200.03 feet, to a 1/2 inch iron rod found;

THENCE, South 89° 35'53" West, continuing along said south line, for a distance of 240.17 feet, to a 1/2 inch iron rod found at the southwest corner of said 8.0 acre tract;

THENCE, North 02° 23'58" West, along the west line of said 8.0 acre tract, for a distance of 796.75 feet, to a 1/2 inch iron rod found at the northwest corner of said 8.0 acre tract being in south line of said 14.985 acre tract;

THENCE, South 89° 30'55" West, along the south line of said 14.985 acre tract, for a distance of 297.06 feet, at the southwest corner of said 14.985 acre tract and being the southeast corner of said 14.088 acre tract;

THENCE, South 89° 30'55" West, along the south line of said 14.088 acre tract, for a distance of 649.52 feet, to a 1/2 inch iron rod found;

THENCE, South 88° 22'34" West, continuing along said south line, for a distance of 183.74 feet, to a Railroad spike found at the southwest corner of said 14.088 acre tract and being the southeast corner of said 4.417 acre tract;

THENCE, South 89° 33'39" West, along the south line of said 4.417 acre tract, for a distance of 282.19 feet, to the POINT OF BEGINNING and containing 41.512 acres of land.

SURVEYOR'S CERTIFICATE

I, WARREN L. CORWIN, a registered Professional Land Surveyor in the State of Texas, do hereby certify that I prepared this plat from actual and accurate survey of the land and that the corner monuments shown thereon were properly placed, under my personal supervision, in accordance with the subdivision regulations of the City of Lucas, Texas.

_____
Registered Professional Land Surveyor
Registration No. 4621
Date:

THE STATE OF TEXAS
COUNTY OF COLLIN

Before me, the undersigned, a Notary Public in and for the State of Texas, on this day personally appeared WARREN L. CORWIN, known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed same for the purpose and consideration therein expressed.

Given under my hand and seal of office, this_____ day of_____, 2022.

_____
NOTARY PUBLIC, STATE OF TEXAS

FOR REVIEW PURPOSES ONLY

FINAL PLAT

BARRATT LAKE ESTATES

LOTS 1-12 BLOCK A
OUT OF THE
JOHN THOMPSON SURVEY ABSTRACT NO. 893
G. DUCASE SURVEY, ABSTRACT NO. 270
IN THE
CITY OF LUCAS
COLLIN COUNTY, TEXAS
ZONING: R-2

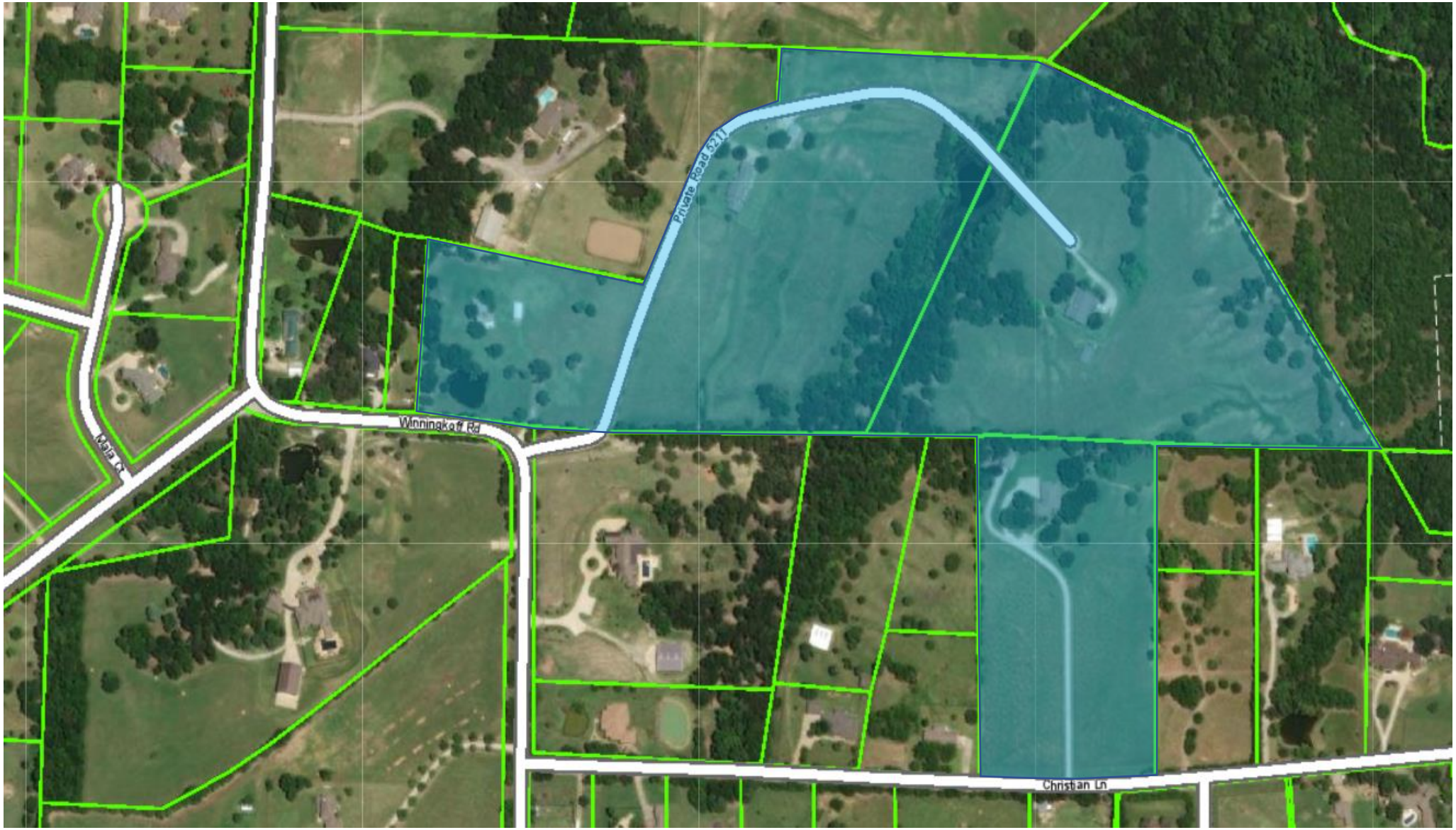
OWNER
BARRATT LAKE ESTATES, LLC.
PO BOX 863264
PLANO, TEXAS 75086

PREPARED BY
CORWIN ENGINEERING, INC.
TBPE FIRM #5951
TBPLS #10031700
200 W. BELMONT, SUITE E
ALLEN, TEXAS 75013
972-396-1200

JANUARY 2022

Barratt Lake Estates

Location Map



City of Lucas
Planning and Zoning Agenda Request
January 13, 2022

Item No. 04

Requester: Planning and Zoning Commission

Agenda Item Request

Consider final review and approval of amendments to Chapters 1, 2, and 3 of the City of Lucas Comprehensive Plan and review Chapters 4, 5, and 6 of the Comprehensive Plan to discuss possible amendments.

Background Information

The following table outlines a timeline for review of the City of Lucas Comprehensive Plan by the Planning and Zoning Commission. The process to update the Comprehensive Plan will be incorporating amendments recommended by the Planning and Zoning Commission and then bringing those revisions before City Council. Once the City Council has completed its review and revision process, staff will request the two required public hearings to be scheduled.

	P&Z Meeting to Discuss	Comments to City Secretary	Back to P&Z for finalization
Chapters 1, 2 and 3	December 9	December 21	January 13
Chapters 4, 5 and 6	January 13	January 24	February 10
Chapters 7 and 8	February 10	February 21	March 10

Chapter 6 of the Comprehensive Plan, Parks, Recreation and Open Space has been amended, reviewed, and approved by the by the Parks and Open Space Board along with the Trails Master Plan at their December 13, 2021, meeting.

To date, the status of each Chapter is as follows:

Chapter/Maps	**Status**
Chapter 1	Approve final edits
Chapter 2	Approve final edits
Chapter 3	Approve final edits
Chapter 4	Under review
Chapter 5	Under review
Chapter 6	Approved by Parks and Open Space Board
Chapter 7	Reviewed by City Council, forwarding to P&Z for review in February
Chapter 8	
Wastewater System Master Plan Map (Chapter 8)	
Water System Map (Chapter 8)	
Thoroughfare Plan Map (Chapter 7)	Reviewed by City Council, forwarding to P&Z for review in February
Land Use Map (Chapter 4)	
Trails Master Plan Map (Chapter 6)	Approved by Parks and Open Space Board

City of Lucas
Planning and Zoning Agenda Request
January 13, 2022

Item No. 04

Attachments/Supporting Documentation

1. Amended redline version of Chapters 1, 2, and 3 of the Comprehensive Plan
2. Chapter 4, 5, and 6 of the Comprehensive Plan

Budget/Financial Impact

NA

Recommendation

NA

Motion

I make a motion to approve the amendments to Chapters 1, 2, and 3 of the City of Lucas Comprehensive Plan.

CHAPTER 1
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~~ cities 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,
- Maintain a high quality of life for its citizens, and
- Establish a rational and reasonable basis for making decisions about the community.

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This updated version of the comprehensive plan will address the preservation of the country atmosphere of Lucas by ~~addressing~~ identifying 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~~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.

Lucas~~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
- Nearby recreational facilities such as~~Proximity to~~ Lake Lavon

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~~Lucas a stable and attractive community.

CHAPTER 2
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 (NCTCOG) -Databases on Demographics, and other s~~S~~tate 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 a~~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% and ~~. This is a reflection of~~reflects 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 future~~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~~ its extra-territorial jurisdiction (ETJ) are shown in table 2.1 and 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.

The anticipated population growth will place additional demands on the City's infrastructure and resources:

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

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.

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CHAPTER 3

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 and~~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 ETJ~~extra territorial jurisdiction~~ there are 697 units, bringing the total housing in Lucas and the ETJ to 2,832 units.

- Single family 2,111 units
- Semi or non-permanent housing 24 units
- ETJ S~~S~~ingle 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 their~~its~~ useful service life. To enable the city to direct its efforts in developing 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 utilitiesy ~~lines~~.

Objectives:

- Establish and maintain subdivision ordinances to ensure that new infrastructure meets or

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exceeds minimum city requirements.

- Encourage high-quality construction through the continued enforcement of city ordinances and ~~recognized~~ adopted building codes.
- A~~lleviate~~lleviate maintenance and service issues by upgrading existing infrastructure (water service, 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.

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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 thise 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.

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 E~~enforcement of the City's adopted ordinances and building codes.
   - Establish or coordinate with existing benevolent groups such as Habitat for Humanity to help those lacking the means to rehabilitate their property~~unable to help themselves~~.
2. Review current zoning ordinance for compliance with development issues within the city.

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CHAPTER 4
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 the gross land in the 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 primarily 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

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

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 improve 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 with national 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

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.

CHAPTER 5
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;
- 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 extraterritorial 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. Most commercial is served as defined by the Waste Water Master Plan. 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, most of 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. 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 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. 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 2551and 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 as defined by the Waste Water Master Plan.
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. 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.

CHAPTER 6
PARKS, RECREATION AND OPEN SPACE

INTRODUCTION OF PARKS, OPEN SPACE, AND TRAILS

Lucas is a distinctive community with unique features in design and surrounding natural environments. The City contains a total land area of 10,284 acres and 75 percent (or 7,713 acres) of the land has been developed. The remaining acres of land are vacant or being used for agricultural related purposes. Lucas is primarily comprised of low-density housing, large residential lots, and natural open spaces throughout the City. Lucas is a hidden gem community with estate style living in the Dallas Fort-Worth Metroplex that is easily accessible to public parks, trails, recreational activities, and Lavon Lake. The City's entire eastern boundary borders along Lavon Lake and the Trinity Trail. There are three public parks, one private park, and three public trailheads located in Lucas; however, there is no planned or designated open space system.

The City Council appoints a Parks and Open Space Board that serves in an advisory capacity to the City Council in all matters relating to parks and open space. The Parks and Open Space Board also makes recommendations on the implementation of beautification programs and projects to enhance the natural beauty of Lucas. During this update of the Comprehensive Plan, the City worked with the Parks and Open Space Board on making necessary revisions to help provide guidance on future planning for parks, open space, and trails. This collaboration has also led to an update of the Trails Master Plan where new trail sections have been added to show the connectivity between neighborhoods, public parks, facilities, and the Trinity Trail. The updated Parks, Open Space, and Trails Master Plans continue to place an emphasis on providing public access to recreational opportunities while preserving the natural environment of Lucas.

PREVIOUS PARKS AND OPEN SPACE MASTER PLANS

1988 – The first Comprehensive Plan for Lucas was adopted in 1988 and included a section on parks which indicated there were no recreation areas within the City. The plan revealed there was a lack of open space and recreation areas that needed to be addressed as the City continued to be developed.

2003 – The City Council adopted Ordinance No. 2003-11-00490 entitled Park Land Dedication to provide requirements for park land dedication in new residential and mixed-use subdivisions and to provide for necessary planning for open space preservation and park development. The Ordinance states the following requirements for park land dedication:

- The City shall create and maintain a master park plan for the City.
- The master park plan shall designate the size of the parks and the park zones that are to be supportive of these parks.
- Dedication of parkland shall be in accordance with the master park plan.
- The City will determine the park location based on land suitability.
- This master park plan may be, from time to time, updated and amended at the discretion of the City.

2004 – The City completed an update to the Comprehensive Plan which included a section on parks and open space. A community survey was conducted to determine interest regarding parks, open space, and recreational amenities.

2005 – The City moved forward with developing the Parks and Open Space Master Plan. The City conducted another citizen survey to verify the accuracy of past survey results. The survey findings suggested that citizens were most interested in multi-purpose trails (walking, hiking, and biking), undeveloped open space, picnicking/pavilions, fishing piers, and equestrian trails/arena. These top preferences can be attributed to the rural character of Lucas and proximity to Lavon Lake.

Public workshops and meetings were held to obtain additional public input where the citizen concerns were also found to be consistent with the citizen survey results. The citizen group agreed that Lavon Lake was a major resource for Lucas. This led to recommendations to preserve park land along the lake and that the trail system should also link residential neighborhoods to the lake.

2006 – The Parks and Open Space Master Plan was adopted by the City Council and serves as the master plan for the physical development of the City to provide recommendations for the growth, development, and beautification.

2015 – The City began efforts to update the Comprehensive Plan and the Parks and Open Space Master Plan. These efforts included town hall meetings and workshops to receive citizen feedback about local parks, recreation, and open space priorities. The Parks and Open Space Board took on an active role in recommending updates including developing the Trails Master Plan.

2017 – The City Council approved the Comprehensive Plan which included the Trails Master Plan and updated Parks and Open Space Plan. The Trails Master Plan designates all trails east of FM 1378 (Country Club Road) to be equestrian and hiking trails. All trails west and south of FM 1378 are designated as multi-purpose trails.

2021 – In this newly updated Comprehensive Plan, the Parks and Open Space Board recommends new changes to the Trails Master Plan located in the southern trail section (Willow Springs Middle School to Southview Drive) and northern trail section (Trinity Trail Connect). The Parks and Open Space Board has prioritized sections of the Trails Master Plan based on connectivity to schools, public facilities, and access points to the Trinity Trail. The Parks and Open Space Board has also expressed an interest in the expansion of existing parks to accommodate more visitors as the population grows.

EXISTING PARKS AND OPEN SPACE

The City of Lucas operates three public parks in addition to having preserved considerable open space and accessibility through the development process. The City's public parks are the Lucas Community Park, Kenneth R. Lewis Park, and Forest Creek Park. There is a private park which is located in the Stonegate subdivision. Brockdale Park and Highland Park are also located in Lucas; however, the parks are located on land owned by the U.S. Army Corps of Engineers. Lucas has three accessible trailheads available to the public: East Winningkoff Trailhead, Brockdale Park Trailhead, and Highland Park Trailhead. The City owns and maintains the East Winningkoff Trailhead which provides trail access in the northern area of Lucas. The U.S. Army Corps of Engineers owns and maintains the Highland Park and Brockdale Park Trailheads which provide trail access on the eastern areas of Lucas.

LUCAS COMMUNITY PARK

665 Country Club Road

The City established the Lucas Community Park in 2009 and is located south of City Hall. The park is three acres and offers a five-foot-wide concrete sidewalk that circulates around two adjacent walking loops. The park also includes a pavilion, picnic tables, benches, barbecue grills, fire pit, and a large playground. Lucas residents and non-residents have the option to reserve the pavilion for a fee. There is also the Community Center located on the west area next to a gravel parking lot. The Community Center is only available to Lucas residents to reserve at no cost. The facility provides an opportunity for residents to utilize the event space and rooms for special occasions. There is a public parking lot located between City Hall and the park. Improvements were made to the gravel parking lot to expand parking capacity during special events. Drainage improvements were made to the western park loop to prevent any flooding from that area of the park.

KENNETH R. LEWIS PARK

820 Southview Drive

Kenneth R. Lewis dedicated park land to the City in 1989. The park became known as Kenneth R. Lewis Park and is situated on five acres. Two-thirds of the park is open space and undeveloped for use with recreational activities. The City has continued to maintain the park over the years. The park includes a baseball/softball field with a dugout, soccer fields, pavilion, restroom facilities, and public parking. There is also a concrete pathway surrounding the park that is available for walking.

FOREST CREEK PARK

985 Orchard Gap Lane

Forest Creek Park is a neighborhood park located near the subdivisions of Forest Creek Estates, Whiterock Creek Estates and Northfork Ranch in the northern section of Lucas. The public can access the park from Country Club Road via Orchard Gap Lane off Norfolk Lane or White Rock Trail. The park is two-acres consisting of a parking area, pavilion, two playgrounds, open space, sport court, and soccer field with goals. The City made park improvements to remove dilapidated structures which accumulated within the vicinity of the park. As part of the park renovations, the City also added a sport court, soccer goals, pavilion, and picnic tables.

STONEGATE PARK

St. James Drive

Stonegate Park is a private park located within the gated neighborhood of Stonegate in the northern section of Lucas. The park does not have a property address, but it is situated between 150 and 250 St. James Drive. Stonegate Park is only accessible to residents within the Stonegate neighborhood. This is a very small neighborhood park occupying less than one acre to one of the tributaries of White Rock Creek. The park offers a traditional multiuse playground, small gazebo, picnic tables, and two-foot-wide concrete sidewalk that passes through the park. The sidewalk connects to a concrete trail that continues alongside the tributary of White Rock Creek.

EAST WINNINGKOFF TRAILHEAD

745 East Winningkoff Road

In 2017, the City developed the East Winningkoff Trailhead which is located in the northeast section of the City. The trailhead sits on three acres of land with equestrian and pedestrian access to the Trinity Trail. The trail access point connects to an unimproved trail along East Winningkoff Road to Welborn Lane that connects to the Trinity Trail. The trailhead offers a large gravel parking lot for easy loading and unloading of horses. Additional facilities include a corral, pavilion, restroom, and access to water.

BROCKDALE PARK

1625 Brockdale Park Road

Brockdale Park was established in 2005 and is located on the eastern edge of Lucas next to Lavon Lake. This park is situated on land owned by the U.S. Army Corps of Engineers. Brockdale Park is 127 acres which includes the Brockdale Park Trailhead, boat ramp, and the Blackland Prairie Raptor Center. The Brockdale Park Trailhead provides recreational trail access to the Trinity Trail along Lavon Lake. The trailhead includes parking, equestrian loading/unloading area, riding arena, restroom facility, pavilion, corral, and access to water. The Brockdale Park boat ramp is located east of the trailhead which allows access to Lavon Lake. The boat ramp has public parking available for vehicles, trailers, and boats. This provides access to recreational activities on the lake for those who enjoy boating and fishing activities. The Blackland Prairie Raptor Center is a non-profit organization that is located on the land area of Brockdale Park. The Blackland Prairie Raptor Center is dedicated to environmental preservation through public education and the conservation of birds of prey and wildlife in their natural habitat.

HIGHLAND PARK

1955 Snider Lane

Similar to Brockdale Park, the U.S. Army Corps of Engineers owns and maintains Highland Park. Highland Park is located at the northeast edge of Lucas and is approximately 59 acres. The park has a parking area and restrooms with relatively minimal services onsite. Highland Park provides a boat ramp at the north end of the park for boating and fishing activities on Lavon Lake. The entrance to the boat ramp is through Highland Park Road which is located north of Snider Lane. The boat ramp is concrete with ample parking for trailers and vehicles. Similar to Brockdale Park, the Trinity Trail passes through Highland Park and provides access points to the trail. A section of the Trinity Trail continues north past the limit of Highland Park to the northern section of Lucas near the North Texas Municipal Water District Treatment Plant. The Highland Park Trailhead is located south of Highland Park where the public can load and unload their horses to utilize the trail system. The trailhead includes facilities such as a loading/unloading area, restroom with ADA considerations, one pavilion, and a watering place for horses.

OPEN SPACES AND NATURAL FEATURES

Open Space is defined by the U.S. Environmental Protection Agency as any open piece of land that is undeveloped and is accessible to the public. There are no buildings or other built structures located on land designated as open space. Open space can include school yards, playgrounds, public seating areas, public plazas, vacant lots, and green space. Green space is land that is partly or completely covered with grass, trees, shrubs, or other vegetation. Green space includes parks, community gardens, and cemeteries. The City's desire to preserve open space is outlined in the Park Land Dedication Ordinance which includes different options for the handling of park land dedication and the preservation of open space in Lucas.

Lucas also has other forms of open space such as trail easements and federal land surrounding Lavon Lake. The most important natural feature in Lucas is Lavon Lake and its tributary creeks. Lavon Lake was constructed in 1954 and is owned and controlled by the U.S. Army Corps of Engineers. There are 20 acres along the lake designated for park use (Brockdale Park and Highland Park) which are located within the City's boundaries. The public has access to these parks, the trail system, and the lake for recreational activities.

EXISTING TRAILS

The Trinity Trail and the connecting trail from the East Winningkoff Trailhead is currently the only public trail in-use that exists in Lucas. The trail is only open for recreational use to equestrians and

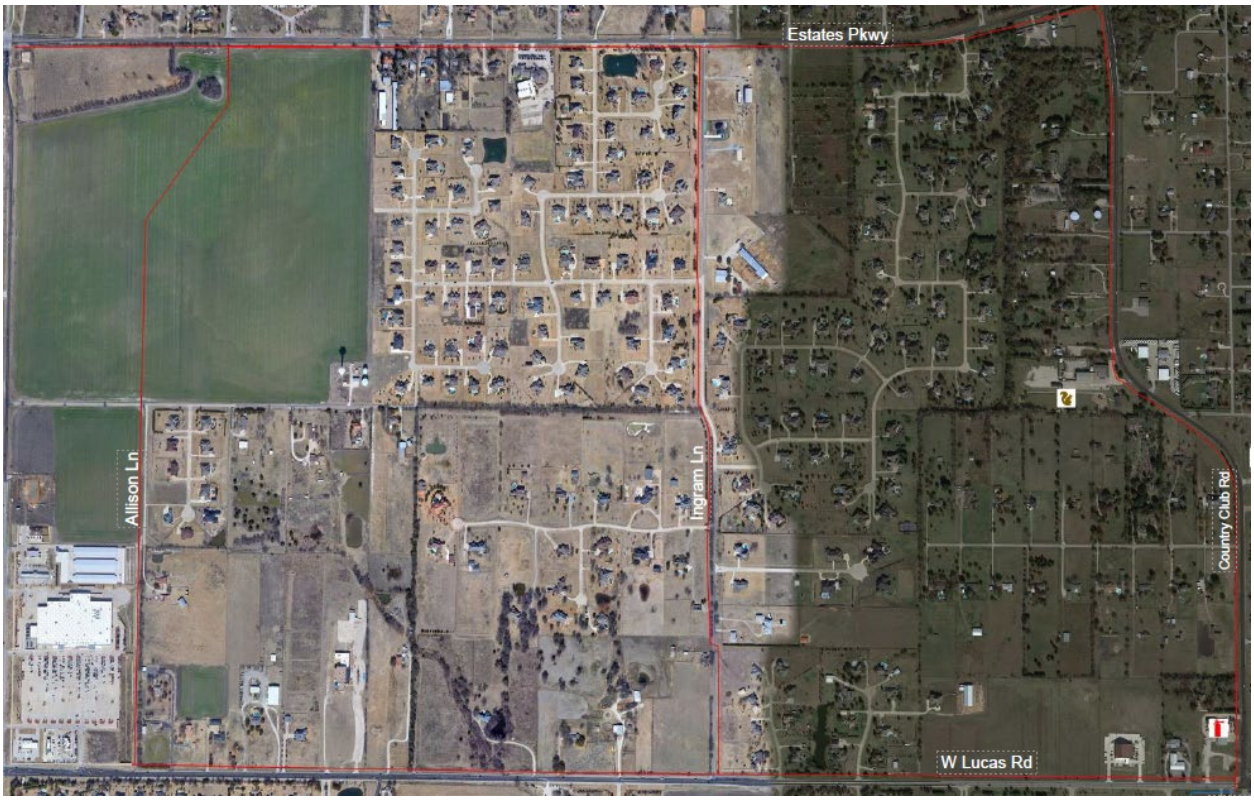
hikers. The Trinity Trail is situated along Lavon Lake with scenic views of the lake and surrounding natural landscape. The trail is unpaved and is 25.5 miles long located on federal land owned by the U.S. Army Corps of Engineers. The trail extends from the south at the East Fork Trailhead in Wylie, Texas to the north at the Giant Sycamore Loop in Fairview, Texas. There is approximately 11 miles of the Trinity Trail that passes through Lucas. This trail enters the City from the south at Collin Park in St. Paul, Texas and stretches north along the edge of the lake passing through Brockdale Park and Highland Park.

The Trinity Trail is operated and maintained by the Trinity Trail Preservation Association, a non-profit organization dedicated to the preservation and maintenance of the Trinity Equestrian and Hiking Trail. The City partners with the Trinity Trail Preservation Association and the U.S. Army Corps of Engineers for a Public Lands Trail Cleanup where volunteers pick up trash and debris on sections of the Trinity Trail. The City also entered into a Memorandum of Understanding between Collin County and the U.S. Army Corps of Engineers to work together in coordinating and supporting the development and operation of a multi-use trail for equestrian and pedestrian use at Lavon Lake. This partnership helps determine goals related to the planning, development, and operation of the Trinity Trail.

PROPOSED FUTURE TRAILS

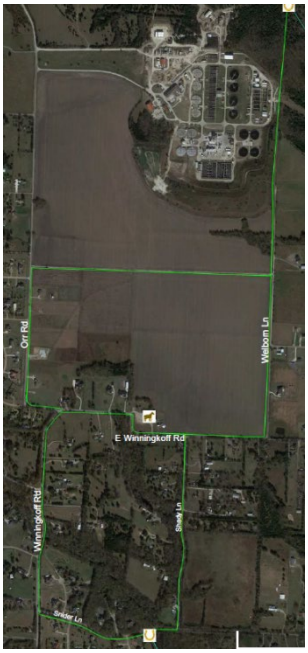
During development of the Parks and Open Space Master Plan, the City conducted a community survey and held public meetings to collect feedback from residents on interests related to parks and open space. Residents ranked trails as the number one interest for parks and open space in the community survey. When the City began updating the Comprehensive Plan, the Parks and Open Space Board worked towards developing the Trails Master Plan which focuses on three primary trail sections within Lucas: 1) Central Loop, 2) Northern Trail (Trinity Trail Connect), and 3) Southern Trail (Willow Springs Middle School to Southview Drive). In order to ensure safety of all users along the trail system, the Trails Master Plan designates all trails east of FM 1378 (Country Club Road) to be equestrian and hiking trails. The trails west and south of FM 1378 are designated separate as multi-purpose trails to prevent potential safety risks between horse riders, bicyclists, walkers, and hikers.

Central Trail Loop



The Parks and Open Space Board has prioritized the Central Loop in the Trails Master Plan as the number one trail priority. The Central Loop is a multi-purpose trail focused on connectivity to schools, public facilities, churches, and businesses. There are three major schools located along the Central Loop: Hart Elementary School, Willow Springs Middle School, and Lovejoy High School. The loop also connects to City Hall, Fire Station, and the Lucas Community Park. The trail loop would begin at West Lucas Road/Allison Lane, extend east to and north on Country Club Road, west onto Estates Parkway, and south on Allison Lane returning to West Lucas Road. There would also be a trail connection through Ingram Lane to connect West Lucas Road and Estates Parkway. As the Texas Department of Transportation (TxDOT) works on the roadway expansion along Angel Parkway, the City may want to consider a potential trail connection from the Central Loop. This would allow residents to connect to retail and dining establishments in the main commercial area of Lucas.

Northern Trail (Trinity Trail Connect)



The Northern Trail (also known as Trinity Trail Connect) is considered second priority on the Trails Master Plan. The Trinity Trail Connect is an equestrian and pedestrian trail that connects to the East Winningkoff Trailhead and has access points to the Trinity Trail. This trail consists of two loops which are centrally connected to the East Winningkoff Trailhead. These two loops would allow recreational access for residents who live in the northern area of the City. Public parking is available at the East Winningkoff Trailhead where users could walk or ride horses on the trail and connect to the Trinity Trail through access points.

The first trail loop extends west from Welborn Lane, south on Orr Road, east on Winningkoff Road, and returns north onto Welborn Lane. The second trail loop creates a connecting southern section that extends south from East Winningkoff Road onto Shady Lane, west on Snider Lane, and north on Winningkoff Road.

Southern Trail
(Willow Springs Middle School to Southview Drive)

The Southern Trail (also known as Willow Springs Middle School to Southview Drive) is considered third priority in the Trails Master Plan. This trail would connect the southern neighborhoods to Willow Springs Middle School and Kenneth R. Lewis Park. The trail would begin on the eastern side of Willow Springs Middle School on West Lucas Road and continue south to the back of the school connecting to North Bluffview Drive. The trail would extend south through Hidden Pass Lane, west on South Bluffview Drive, south and east on Bastrop Road connecting to Stinson Road. The trail would continue south along Stinson Road, passing Highland Drive, extend east to Southview Drive, and continues north connecting to Kenneth R. Lewis Park. It is desirable to develop a small trailhead in the southern trail section but due to undefined development, the location has not yet been identified.

GOALS AND OBJECTIVES

The City continues to make improvements and pursue special projects to achieve the goals established in the Comprehensive Plan. The goals and objectives were developed in coordination with previous

comprehensive and community planning. The Parks, Open Space, and Trails Master Plans help outline a prioritized plan for the development of parks, open space, and trails in Lucas. Since 2017, the City has taken major efforts to achieve these goals such as the development of the East Winningkoff Trailhead, renovation at Forest Creek Park, maintenance at Kenneth R. Lewis Park, and improvements at Lucas Community Park. The City has also submitted trail grant applications to be considered for the Texas Department of Transportation (TxDOT) Safe Routes to Schools Project, Texas Parks and Wildlife Department Recreational Trails Grant, and Collin County Parks and Open Space Project Funding Assistance Program. The City continues to monitor for new grant application opportunities and identify potential special projects that would be deemed eligible. The City supports the following goals and objectives when considering new projects for parks, open space, and trails.

GOAL 1.
Preserve natural environment and native ecosystems.

Objectives:

- Conserve and protect ecologically sensitive and naturally beautiful areas (e.g., flood plains along creeks, wetlands, 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, equestrian/hiking trails, etc.
- Encourage and promote water conservation using native plant materials, Smartscape techniques, and other methods.
- Maintain high standards for groundwater quality due to the proximity of Lavon Lake.
- Encourage development types, which minimize impacts upon the community's natural resources and visual appeal.

GOAL 2.
Provide a comprehensive Trails Master Plan to include green belt and open space that is compatible with the environment and compatible with residential neighborhoods.

Objectives:

- Continue to update Chapter 6, Parks, Recreation and Open Space of the Comprehensive Plan to meets current preferences and reflection of changing environment in the region.
- 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 parks 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 connect schools, parks, and residential areas locally and regionally.
- 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 Trails Master Plan" approved by the Collin County Commissioners Court on May 7, 2012.
- Coordinate planning efforts and trail connection points with 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 as well as the expansion and redevelopment of existing park facilities
- 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 local, state, and federal grant opportunities.

PLAN AND RECOMMENDATIONS

The purpose of this plan and the recommendations are to provide community direction in a constantly changing environment. The City collaborates with community stakeholders when considering new projects related to public parks, open space, and trails. As the Lucas population continues to increase, the Parks and Open Space Board recommends focusing on the expansion of existing parks to accommodate visitors and additional space. The Lucas Community Park is a popular park used by the City for large-scale special events and it has become evident that public parking is limited. Special events at the park have become large community gatherings where the City may want to consider expansion in the future. In addition to parks and open space, the City has updated its Trails Master Plan by examining practical trail locations that would not impede on a resident's property.

The Parks and Open Space Board has developed an adopt-a-park program where each board member visits a city park on a rotational basis to help recommend park improvements to the City. To further help achieve the goals in this plan, the City's Keep Lucas Beautiful program continues to promote the beautification and natural preservation of Lucas. As the City considers future planning and decision making related to parks, open space, and trails, the following recommendations are intended as a guide for the Parks, Open Space, and Trails Master Plans.

- Trails (equestrian, hiking and biking), greenbelts, parkways or paths should connect to large

recreational areas and provides access to recreational opportunities and scenic views.

- Prioritization of the Trails Master Plan beginning with the Central Loop, Northern Trail (Trinity Trail Connect), and Southern Trail (Willow Springs Middle School to Southview Drive).
- Expansion of existing parks to accommodate additional space and public parking during the City's special events.
- Municipal recreational facilities should be used to serve the community and prevent the construction of redundant facilities.
- School recreational facilities are encouraged to make the facilities available to the public when practical. If possible, school recreational areas should include parking, drinking fountains, restrooms and remain open on weekends and during the summer months.

City of Lucas
Planning and Zoning Commission Request
January 13, 2022

Item No. 05

Requester: Planning and Zoning Commission

Agenda Item Request

Consider the appointment of a Chairman and Vice Chairman of the Planning and Zoning Commission to serve for a period of one (1) year with a term ending December 31, 2022.

Background Information

NA

Attachments/Supporting Documentation

NA

Budget/Financial Impact

NA

Recommendation

NA

Motion

I make a motion to appoint _____ as Chairman of the Planning and Zoning Commission for a period of one (1) year with a term ending December 31, 2022.

I make a motion to appoint _____ as Vice Chairman of the Planning and Zoning Commission for a period of one (1) year with a term ending December 31, 2022.

City of Lucas
Planning and Zoning Agenda Request
January 13, 2022

Item No. 06

Requester: City Secretary Stacy Henderson

Agenda Item Request

Consider approval of the minutes of the December 9, 2021, Planning and Zoning Commission meeting.

Background Information

NA

Attachments/Supporting Documentation

1. December 9, 2021, Planning and Zoning Commission minutes.

Budget/Financial Impact

NA

Recommendation

NA

Motion

I make a motion to approve the minutes of the December 9, 2021, Planning and Zoning Commission meeting.

MINUTES
PLANNING AND ZONING COMMISSION MEETING

December 9, 2021 | 7:00 PM
Council Chambers | Video Conference
City Hall | 665 Country Club Road, Lucas, Texas

Call to Order

The meeting was called to order at 7:00 pm. It was determined that a quorum was present and the Pledge of Allegiance was recited.

Commissioners Present:
Chairman Peggy Rusterholtz
Vice Chairman Joe Williams *(remote)*
Commissioner Adam Sussman *(remote)*
Commissioner Tommy Tolson
Commissioner Dusty Kuykendall
Alternate Commissioner James Foster
Alternate Commissioner Chris Bierman

Staff Present:
City Manager Joni Clarke
Development Services Director Joe Hilbourn
City Secretary Stacy Henderson
City Attorney Courtney Morris

City Council Liaison Present:
Mayor Jim Olk

Public Hearing

1. **Public hearing to consider the request by Bill Shipley on behalf of Golden Chick for a Specific Use Permit (SUP) to allow a drive-thru restaurant on a proposed tract of land, zoned Commercial Business, being 0.833 acres, on Lot 1, Block A, Pennington Addition, William Snider Survey, Abstract No. 821, Collin County Texas, also known as 451 South Angel Parkway.**

Development Services Director Joe Hilbourn gave a presentation regarding the specific use permit request.

The public hearing was opened at 7:06 pm, there being no one wishing to speak, the public hearing was closed at 7:07 pm.

Jay Alexander, representing Golden Chick, discussed proposed hours of operation noting that normal hours of operation were from 10 am to 10 pm.

MOTION: A motion was made by Chairman Rusterholtz, seconded by Commissioner Sussman to approve the specific use permit for Golden Chick to allow a drive-thru restaurant on a proposed tract of land, zoned Commercial Business, being 0.833 acres, on Lot 1, Block A, Pennington Addition, William Snider Survey, Abstract No. 821, Collin County Texas, also known as 451 South Angel Parkway with the conditions outlined below. The motion passed unanimously by a 5 to 0 vote

1. Tie the attached concept plan to the specific use permit
2. All exterior lighting will be on a timer, that turns all lights except security lighting off thirty minutes after close of business.
3. Hours of operation from 10:00 am. to 10:00 pm.
4. Exterior lighting shall omit no glare across property lines.

Regular Agenda

2. Consider the request by Brian Umberger on behalf of Pankaj Srivastava for approval of a final plat for a 17.646-acre parcel of land being part of the Jas Grayum Survey, Abstract CO-354 located on the west side of Country Club Road and north of Graham Lane, more commonly known as 2115 and 2125 Country Club Road, Lucas, Texas.

The applicant requested this item be withdrawn. There was no action taken on this item.

3. Consider the request by Todd Winters on behalf of Barrett Owens for approval of a preliminary plat for an 18.858-acre parcel of land being part of the Jas Grayum Survey, Abstract 354 located on the north side of Estates Parkway and east of Orchard Road, more commonly known as 1900 Estates Parkway, Lucas, Texas.

Development Services Director Joe Hilbourn gave a presentation regarding the preliminary plat explaining that drainage plans had not yet been approved as the applicant was waiting on information from City staff before drainage plans could be submitted.

The following individuals spoke regarding this request:

- Todd Winters, engineer for the project assured the Commission they would meet all drainage requirements.
- Barrett Owens, applicant, spoke in favor of moving forward with the preliminary plat and would meet all necessary requirements for drainage.
- Lynn McKnight, 1250 Farmstead, spoke in favor of the request.
- Joel Speers, 1209 Farmstead, spoke in favor of the request.

MOTION: A motion was made by Commissioner Tolson, seconded by Chairman Rusterholtz to approve the preliminary plat on behalf of Barrett Owens for an 18.858-acre parcel of land being part of the Jas Grayum Survey, Abstract 354 located on the north side of Estates Parkway and east of Orchard Road, more commonly known as 1900 Estates Parkway, Lucas, Texas with the condition the developer deliver all drainage plans to City staff prior to final plat submittal, and the preliminary plat be approved conditionally because it does not meet the following requirements of the City's Code of Ordinances: Section 10.03.032 Submission Dates; Section 10.03.033 Official Filing Date; Section 10.03.034 General Approval Criteria; Section 10.03.039(3) Standards for Approval of Preliminary Plats; Section 10.03.040(b)(1) Data Requirement for Preliminary Plats; and Section 10.04.020 Preliminary Plats. The motion passed by a 4 to 1 vote with Commissioner Sussman voting in opposition due to the preliminary plat submittal being incomplete prior to submission to the Planning and Zoning Commission.

4. Consider updates to Chapters 1, 2 and 3 of the City of Lucas Comprehensive Plan dated March 2017.

The Commission agreed to make edits to a working document that would be forwarded from City staff for incorporation into the Comprehensive Plan. There was no action on this item, it was for discussion purposes only.

5. Consider approval of the minutes of the October 14, 2021 and November 11, 2021, Planning and Zoning Commission meeting.

MOTION: A motion was made by Commissioner Tolson seconded by Commissioner Kuykendall to approve the minutes of the October 14, 2021 and November 11, 2021 Planning and Zoning Commission meetings. The motion passed unanimously by a 5 to 0 vote.

6. Adjournment.

MOTION: A motion was made by Commissioner Sussman seconded by Commissioner Williams to adjourn the meeting at 8:02 pm. The motion passed unanimously by a 5 to 0 vote.

_____ _____

Peggy Rusterholtz, Chairman Stacy Henderson, City Secretary