AGENDA CITY COUNCIL MEETING



April 7, 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 Lucas City Council will be held on Thursday, April 7, 2022, beginning 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 City Council 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. Pursuant to Texas Government Code 551.127, one or more members of the governing body may appear via videoconference call.

To join the meeting, please click this URL:

https://us06web.zoom.us/s/81923044914?pwd=V2QvTk5pK25nTUR3bW0yeFRnR2RUdz09

and enter your name and email address

Join by phone: 1-346-248-7799 Webinar ID: 819 2304 4914

Passcode: 626177

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

Citizen Input

1. Citizen Input

Community Interest

Pursuant to Section 5510415 of the Texas Government Code, the City Council may report on the following items: 1) expression of thanks, congratulations or condolences; 2) information about holiday schedules; 3) recognition of individuals; 4) reminders about upcoming City Council events; 5) information about community events; and 6) announcements involving imminent threat to public health and safety.

2. Items of Community Interest.

Consent Agenda

All items listed under the consent agenda are considered routine and are recommended to the City Council for a single vote approval. If discussion is desired, an item may be removed from the consent agenda for a separate vote.

- 3. Consent Agenda:
 - A. Approval of the minutes of the March 17, 2022, City Council meeting.

Public Hearing Agenda

- 4. Public hearing to consider adopting Ordinance 2022-04-00948 approving a specific use permit request by Wal-Mart Real Estate on behalf of Panda Express for a drive-through restaurant on a .975-acre tract of land in the W. Snider Survey, Abstract Number 821, being part of Lot 1, Block A, Wal-Mart Lucas Addition, located at 767 South Angel Parkway. (Development Services Director Joe Hilbourn)
 - A. Presentation by Development Services Director Joe Hilbourn
 - B. Conduct Public Hearing
 - C. Take action on the specific use permit request

Regular Agenda

- 5. Receive a presentation on the Keep Texas Beautiful Governor's Community Achievement Award honoring Keep Lucas Beautiful. (Assistant to the City Manager Kent Souriyasak)
- 6. Consider adopting Ordinance 2022-04-00945 amending the Code of Ordinances, Chapter 13 Utilities, Exhibit A, Stormwater Run-Off Planning and Design Criteria Manual. (Development Services Director Joe Hilbourn, On-Call Engineer Joe Grajewski)
- 7. Consider approval of proposed edits recommended by the Parks and Open Space Board and the Planning and Zoning Commission to Chapter 6 Parks, Recreation, and Open Space of the City of Lucas Comprehensive Plan, including the updated Trails Master Plan, and provide direction to staff regarding any additional amendments. (Development Services Director Joe Hilbourn)

8. Consider the selection of a new solid waste and recycling services provider in response to the Request for Proposals for Solid Waste and Recycling Services per the City of Lucas specifications; and authorize the City Manager to negotiate an agreement.

(Assistant to the City Manager Kent Souriyasak, City Secretary Stacy Henderson, Graduate Intern Kevin Becker)

Executive Agenda

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

As authorized by Section 551.071 of the Texas Government Code, the City Council 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.

- 10. Reconvene from Executive Session and take any action necessary as a result of the Executive Session.
- 11. 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, TX 75002 and on the City's website at www.lucastexas.us on or before 5:00 p.m. on March 31, 2022.

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 City Secretary Stacy Henderson at 972.912.1211 or by email at shenderson@lucastexas.us at least 48 hours prior to the meeting.



City of Lucas City Council Agenda Request April 7, 2022

Requester:	Mayor Jim Olk	
Agenda Ite	rem Request	
Citizen Input	t	
Backgroun	nd Information	
NA		
Attachmer	nts/Supporting Documentation	
NA		
Budget/Fir	nancial Impact	
NA		
Recommen	ndation	
NA		
Motion		
NA		



City of Lucas City Council Agenda Request April 7, 2022

Requester: Mayor Jim Olk	
Agenda Item Request	
Items of Community Interest	
Background Information	
NA	
Attachments/Supporting Documentation	
NA	
Budget/Financial Impact	
NA	
Recommendation	
NA	
Motion	
NA	



City of Lucas City Council Agenda Request April 7, 2022

Requester: City Secretary Stacy Henderson
Agenda Item Request
Consent Agenda:
A. Approval of the minutes of the March 17, 2022, City Council meeting.
Background Information
NA
Attachments/Supporting Documentation
1. Minutes of the March 17, 2022, City Council meeting
Budget/Financial Impact
NA
Recommendation
City Staff recommends approval of the Consent Agenda.
Motion

I make a motion to approve/deny the Consent Agenda as presented.

MINUTES



CITY COUNCIL REGULAR MEETING

March 17, 2022 | 7:00 PM

Council Chambers | Video Conference City Hall | 665 Country Club Road, Lucas, Texas

City Councilmembers Present:

Mayor Jim Olk
Mayor Pro Tem Kathleen Peele
Councilmember Tim Johnson
Councilmember Tim Baney
Councilmember David Keer
Councilmember Phil Lawrence (attending remotely)

Councilmember Debbie Fisher

City Staff Present:

City Manager Joni Clarke
City Secretary Stacy Henderson
City Attorney Joe Gorfida
Development Services Director Joe Hilbourn
Finance Director Liz Exum
Assistant to the City Manager Kent Souriyasak

The regular City Council meeting was called to order at 7:00 pm.

Citizen Input

1. Citizen Input

Jason Shepard, 5903 Ridgemore, Parker, Texas representing Parker Lake Estates, discussed his opposition to the proposed removal of a berm and trees behind their neighborhood that would be part of the West Lucas Road expansion project.

Mayor Olk noted that 90% plans had been submitted to the City of Parker for their participation and input, and to date, the City has not received any comments.

Community Interest

2. Items of Community Interest

A. Presentation of Proclamation to In-N-Out Burger for their in-kind donation during the City of Lucas Country Christmas event.

Mayor Olk presented a proclamation to representatives from In-N-Out Burger. Discussion related to upcoming City events occurred along with the TxDOT public meeting for the proposed Country Club Road project.

Consent Agenda

3. Consent Agenda:

- A. Approval of the minutes of the March 3, 2022, City Council meeting.
- B. Consider participation with the City of Prosper and other customer cities regarding an agreement with Raftelis Financial Consultants, Inc. to review the North Texas Municipal Water District Independent Review performed by Amawalk Consulting

Group LLC dated November 23, 2021, and submit their report/findings with an approximate cost of \$1,039.43 (4.1%) based on the participating twelve customer cities to be expensed to account 51-6400-309 Professional Services.

C. Adoption of Ordinance 2022-03-00947 of the City Council of the City of Lucas, Collin County, Texas, setting a new start time of City Council meetings to begin at 6:30 p.m., and providing for an effective date.

MOTION:

A motion was made by Mayor Pro Tem Peele seconded by Councilmember Johnson to approve the Consent Agenda as presented. The motion passed unanimously by a 7 to 0 vote.

Regular Agenda

4. Consider the acceptance and approval of the City of Lucas Annual Comprehensive Financial Report (ACFR) for Fiscal Year 2020-2021 presented by LaFollett and Company PLLC.

Susan LaFollett of LaFollett and Company, PLLC presented the City's annual comprehensive financial audit for fiscal year 2020-2021 discussing financial highlights, general fund balance, the water fund, amd revenues and expenditures.

MOTION:

A motion was made by Mayor Olk, seconded by Councilmember Lawrence, to approve the Annual Comprehensive Financial Report for fiscal year 2020-2021. The motion passed unanimously by a 7 to 0 vote.

- 5. Consider appointing the Grand Marshal for the 2022 Founders Day Parade.
- **MOTION:** A motion was made by Mayor Pro Tem Peele, seconded by Councilmember Fisher to appoint service tree recipients awarded each year as the Grand Marshals for the Founders Day parade beginning with 2022 recipients Tammy Duke and Gary Johnson. The motion passed unanimously by a 7 to 0 vote.
- 6. Discuss the City Council receiving public hearing notices that will be heard by various City boards and provide direction to the City Manager.

The City Council discussed whether it was necessary for the Council to receive public notices that were mailed to citizens regarding cases to be held before the Planning and Zoning Commission or Board of Adjustment to be informed prior to distribution of the board packet.

A majority of the Council was in agreement to maintain receiving the board packet information only and should the need arise, revisit public notice notifications.

Executive Session Agenda

7. Executive Session.

- A. Pursuant to Section 551.071 of the Texas Government Code, the City Council will convene into Executive Session to consult with the City Attorney regarding City of Lucas, Texas v. Robert Kubicek and the following real property: 2205 Estates Parkway, Lucas, Texas, In Rem, Cause No. 417-00147-2018 in the 417 Judicial District Court of Collin County, Texas.
- B. Pursuant to Section 551.074 of the Texas Government Code, the City Council will convene into Executive Session to discuss the evaluation for the City Manager.

The City Council convened into Executive Session at 7:39 pm.

The regular City Council meeting was adjourned at 9:42 pm.

8. Reconvene from Executive Session and take any action necessary as a result of the Executive Session.

The City Council reconvened from Executive Session at 9:42 pm and took the following action.

MOTION: A motion was made by Councilmember Baney, seconded by Councilmember Keer to increase the City Manager's salary to \$175,000. The motion passed unanimously by a 7 to 0 vote.

9. Adjournment.

APPROVED:	ATTEST:
Mayor Jim Olk	City Secretary Stacy Henderson



City of Lucas City Council Agenda Request April 7, 2022

Requester: Development Services Director Joe Hilbourn

Agenda Item Request

Public hearing to consider adopting Ordinance 2022-04-00948 approving a specific use permit request by Wal-Mart Real Estate on behalf of Panda Express for a drive-through restaurant on a .975-acre tract of land in the W. Snider Survey, Abstract Number 821, being part of Lot 1, Block A, Wal-Mart Lucas Addition, located at 767 South Angel Parkway.

- A. Presentation by Development Services Director Joe Hilbourn
- B. Conduct Public Hearing
- C. Take action on the specific use permit request

Background Information

Panda Express is proposing a 2,500 square foot restaurant space with a drive-through. The use does require a specific use permit as outlined in the table below. The site is currently zoned Commercial Business and will be located at the southwest corner of the Wal-Mart parking lot directly behind Bank of America.

	AO	R2	R1.5	R1	VC	СВ	os	MH	LI	ED
Restaurant drive in					S	S			X	
Restaurant (food smoked on site)					S	S			X	
Self-storage						S			S	
Sporting goods					X	X			X	

Attachments/Supporting Documentation

- 1. Site Plan/Concept Plan
- 2. Public Notice
- 3. Ordinance 2022-04-00948 Specific Use Permit for Panda Express

Budget/Financial Impact

NA



City of Lucas City Council Agenda Request April 7, 2022

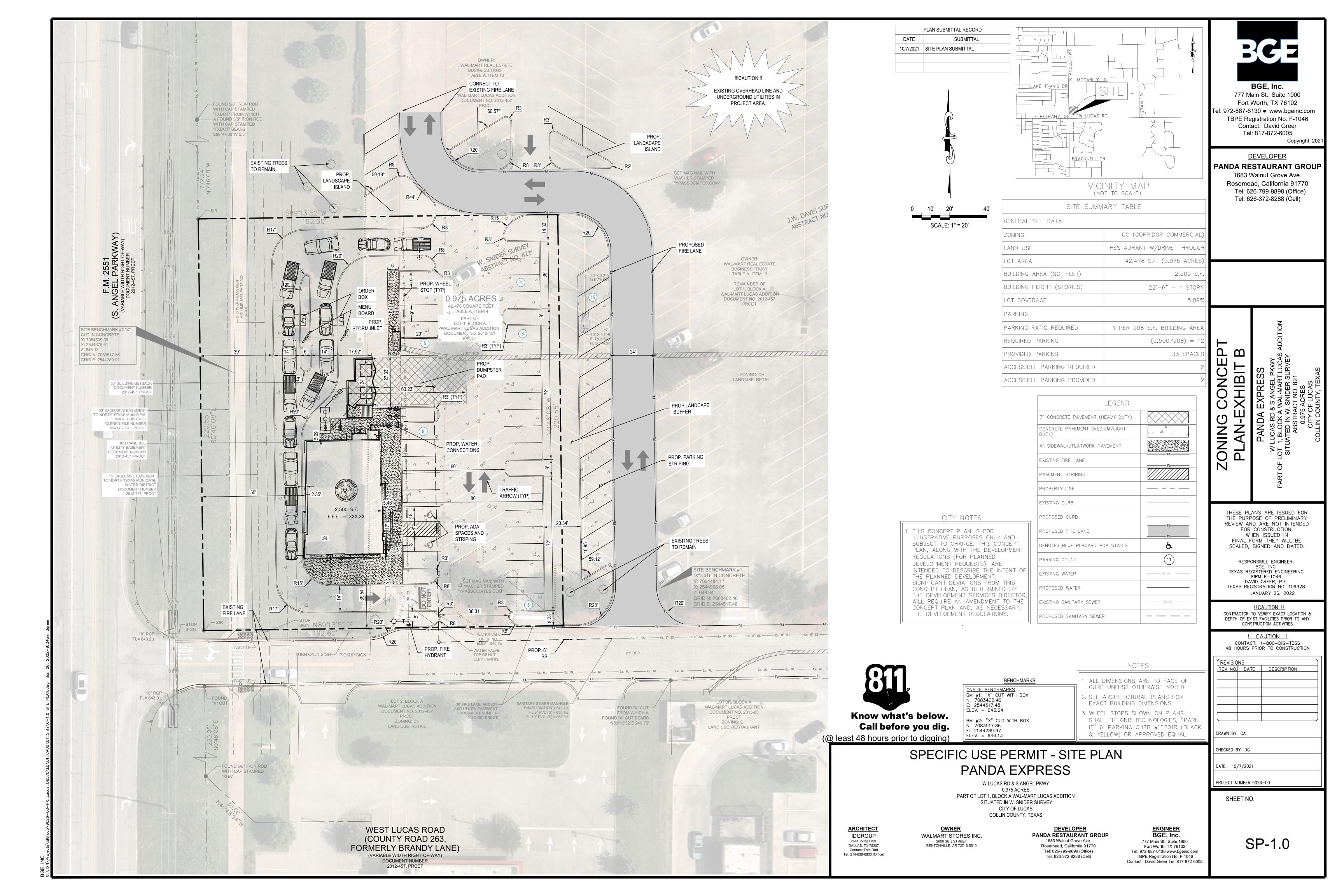
Recommendation

The Planning and Zoning Commission unanimously recommended approval of the specific use permit with the following recommendations:

- 1. All exterior lighting will be on a timer that turns all lights off, except security lighting, thirty (30) minutes after close of business.
- 2. Allowable hours of operation from 6:00 a.m. to 1:00 a.m. (Panda Express' current hours of operation are 9:30 a.m. until 9:30 p.m. Staff is recommending the hours of 6:00 a.m. to 1:00 a.m. to be consistent with surrounding businesses as the specific use permit goes with the property should it change hands.
- 3. Exterior lighting shall have no glare producing luminaires extending beyond the property line.
- 4. Signage should include a monument sign consistent with other monument signs along Angel Parkway.
- 5. The specific use permit be terminated if the project has not commenced within twelve (12) months.
- 6. Tie the attached concept plan to the specific use permit

Motion

I make a motion to approve/deny adopting Ordinance 2022-04-00948 approving a specific use permit request by Wal-Mart Real Estate on behalf of Panda Express for a drive-through restaurant on a .975-acre tract of land in the W. Snider Survey, Abstract Number 821, being part of Lot 1, Block A, Wal-Mart Lucas Addition, located at 767 South Angel Parkway with the conditions recommended by the Planning and Zoning Commission.





NOTICE OF PUBLIC HEARING

NOTICE IS HEREBY GIVEN, that the Planning & Zoning Commission of the City of Lucas, Texas will conduct a public hearing on Thursday, March 10, 2022 at 7:00 p.m. and City Council will conduct a second public hearing on Thursday, April 7, 2021 at 7:00 p.m. at Lucas City Hall, 665 Country Club, Lucas, Texas to consider a Specific Use Permit (SUP) application to permit a drive-thru for a restaurant at 767 S. Angel Parkway. The property is zoned Commercial and more particularly described as follows:

BEING a 0.975 acre tract of land situated in the W. Snider Survey, Abstract Number 821, located in the City of Lucas, Collin County, Texas, being part of Lot 1, Block A, Wal-Mart Lucas Addition, an addition to Collin County, recorded in Document Number 2012-457 of the Official Public Records, Collin County, Texas, (OPRCCT), said 0.975 acre tract being more particularly described as follows: COMMENCING at a found "X" cut having Texas Coordinate System of the North American Datum of 1983 (2011) EPOCH 2010, North Central Zone (4202) Grid Coordinates of Northing 7084431.7 and Easting 2544662.3, at the southwest corner of said Lot 1, Block A, at the northwest corner of Lot 2, Block A, of said Wal-Mart Lucas Addition and on the east line of F.M. 2551 (variable width right-of-way), from which a found 5/8" iron rod found with cap stamped "KHA" at the most west southwest corner of said Lot 2 bears South 00 degrees 46 minutes 08 seconds East, a distance of 230.05 feet; THENCE North 00 degrees 46 minutes 08 seconds West (Grid Bearings based on said Texas Coordinate System), along the west line of said Lot 1 and east right-of-way line of said F.M. 2551, a distance of 30.00 feet to the POINT OF BEGINNING of the herein described;

THENCE North 00 degrees 46 minutes 08 seconds West, along the west line of said Lot 1 and east right-of-way line of said F.M. 2551, a distance of 220.55 feet to a point for corner, from which a found 5/8" iron rod with cap stamped "TXDOT" at the northwest corner of said Lot 1 bears North 00 degrees 46 minutes 08 seconds West, a distance of 772.24 feet;

THENCE North 89 degrees 13 minutes 52 seconds East, across said Lot 1, a distance of 192.60 feet to a point for corner;

THENCE South 00 degrees 46 minutes 08 seconds East, continuing across said Lot 1, a distance of 220.55 feet to a point for corner;

THENCE South 89 degrees 13 minutes 52 seconds West, continuing across said Lot 1, a distance of 192.60 feet to the POINT OF BEGINNING and containing 0.975, or 42,478 square feet of land, more or less.

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



ORDINANCE 2022-04-00948

[Specific Use Permit for Restaurant Drive-Through]

AN ORDINANCE OF THE CITY OF LUCAS, TEXAS, AMENDING THE COMPREHENSIVE ZONING ORDINANCE AND MAP OF THE CITY OF LUCAS, TEXAS, AS HERETOFORE AMENDED, BY GRANTING A SPECIFIC USE PERMIT WITH SPECIAL CONDITIONS TO ALLOW FOR A RESTAURANT DRIVE-THROUGH ON A 0.975-ACRE TRACT OF LAND, LOCATED AT 767 SOUTH ANGEL PARKWAY, CITY OF LUCAS, COLLIN "PROPERTY"), CURRENTLY TEXAS (THE COMMERCIAL BUSINESS DISTRICT (CB), AND BEING MORE PARTICULARLY DESCRIBED IN EXHIBIT "A" ATTACHED HERETO; PROVIDING FOR APPROVAL OF THE CONCEPT PLAN ATTACHED HERETO AS EXHIBIT "B"; PROVIDING A CONFLICTS CLAUSE; PROVIDING A REPEALING CLAUSE; PROVIDING A SEVERABILITY CLAUSE; PROVIDING A SAVINGS CLAUSE; PROVIDING A PENALTY OF FINE NOT TO EXCEED THE SUM OF TWO THOUSAND DOLLARS (\$2,000.00) FOR EACH OFFENSE; AND PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, the Planning and Zoning Commission of the City of Lucas, Texas, and the governing body of the City of Lucas in compliance with the laws of the State of Texas and the ordinances of the City of Lucas, have given requisite notice of publication and otherwise, and after holding due hearings and affording a full and fair hearing to all property owners generally and to all persons interested and situated in the affected area, and in the vicinity thereof, and in the exercise of its legislative discretion have concluded that the Comprehensive Zoning Ordinance and Map of the City of Lucas, Texas, as previously amended, should be amended.

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

SECTION 1. That the Comprehensive Zoning Ordinance and Map of the City of Lucas, Texas, as heretofore amended, be and the same are hereby amended, to grant a Specific Use Permit to allow for a restaurant drive-through, located at 767 South Angel Parkway, City of Lucas, Collin County, Texas, currently zoned Commercial Business (CB), and being more particularly described in Exhibit "A" attached hereto and made a part hereof for all purposes.

SECTION 2. That the above-described property shall be used only in the manner and for the purposes provided for by the Comprehensive Zoning Ordinance of the City of Lucas as heretofore amended, subject to the following special conditions:

(1) The Property shall be developed in accordance with the Concept Plan attached hereto as Exhibit "B" and made a part hereof for all purposes.

City of Lucas Ordinance 2022-04-00948 Approved: April 7, 2022

- (2) All exterior lighting will be on a timer that turns all lights, except security lighting off, thirty (30) minutes after close of business.
- (3) Allowed hours of operation shall be 6:00 a.m. to 1:00 a.m.
- (4) No glare directly or indirectly shall be created at the property line from luminaires.
- (5) Signage shall include a monument sign consistent with other monument signs along Angel Parkway.
- (6) This Specific Use Permit shall terminate if construction of the drive-through restaurant has not commenced within twelve (12) months.

SECTION 3. To the extent of any irreconcilable conflict with the provisions of this ordinance and other ordinances of the City of Lucas governing the use and development of the Property and which are not expressly amended by this ordinance, the provisions of this ordinance shall be controlling.

SECTION 4. That all ordinances of the City of Lucas in conflict with the provisions of this Ordinance shall be, and same are hereby, repealed, provided, however, that all other provisions of said Ordinances are not in conflict herewith shall remain in full force and effect.

SECTION 5. That should any word, sentence, paragraph, subdivision, clause, phrase or section of this Ordinance or of the City of Lucas Code of Ordinances, as amended hereby, be adjudged or held to be voided or unconstitutional, the same shall not affect the validity of the remaining portions of said Ordinances or the City of Lucas Code of Ordinances, as amended hereby, which shall remain in full force and effect.

SECTION 6. An offense committed before the effective date of the Ordinance is governed by prior law and the provisions of the City of Lucas Code of Ordinances in effect when the offense was committed and the former law is continued in effect for this purpose.

SECTION 7. That any person, firm or corporation violating any of the provisions or terms of this Ordinance shall be subject to the same penalty as provided for in the Code of Ordinances, as amended, and upon conviction in the municipal court shall be punished by a fine not to exceed the sum of Two Thousand Dollars (\$2,000.00) for each offense, and each and every day such violation shall continue shall be deemed to constitute a separate offense.

SECTION 8. That this Ordinance shall take effect immediately from and after its passage and publication in accordance with the provisions of the Charter of the City of Lucas, and it is accordingly so ordained

DULY PASSED AND APPROVED BY THE CITY COUNCIL OF THE CITY OF LUCAS, COLLIN COUNTY, TEXAS, ON THIS 7th DAY OF APRIL 2022.

City of Lucas Ordinance 2022-04-00948 Approved: April 7, 2022

	APPROVED:
	Jim Olk, Mayor
APPROVED AS TO FORM:	ATTEST:
Joseph J. Gorfida, Jr., City Attorney (03-29-2022:TM 128687)	Stacy Henderson, City Secretary

EXHIBIT "A" LEGAL DESCRIPTION

BEING a 0.975 acre tract of land situated in the W. Snider Survey, Abstract Number 821, located in the City of Lucas, Collin County, Texas, being part of Lot 1, Block A, Wal-Mart Lucas Addition, an addition to Collin County, recorded in Document Number 2012-457 of the Official Public Records, Collin County, Texas, (OPRCCT), said 0.975 acre tract being more particularly described as follows: COMMENCING at a found "X" cut having Texas Coordinate System of the North American Datum of 1983 (2011) EPOCH 2010, North Central Zone (4202) Grid Coordinates of Northing 7084431.7 and Easting 2544662.3, at the southwest corner of said Lot 1, Block A, at the northwest corner of Lot 2, Block A, of said Wal-Mart Lucas Addition and on the east line of F.M. 2551 (variable width right-of-way), from which a found 5/8" iron rod found with cap stamped "KHA" at the most west southwest corner of said Lot 2 bears South 00 degrees 46 minutes 08 seconds East, a distance of 230.05 feet; THENCE North 00 degrees 46 minutes 08 seconds West (Grid Bearings based on said Texas Coordinate System), along the west line of said Lot 1 and east right-of-way line of said F.M. 2551, a distance of 30.00 feet to the POINT OF BEGINNING of the herein described;

THENCE North 00 degrees 46 minutes 08 seconds West, along the west line of said Lot 1 and east right-of-way line of said F.M. 2551, a distance of 220.55 feet to a point for corner, from which a found 5/8" iron rod with cap stamped "TXDOT" at the northwest corner of said Lot 1 bears North 00 degrees 46 minutes 08 seconds West, a distance of 772.24 feet;

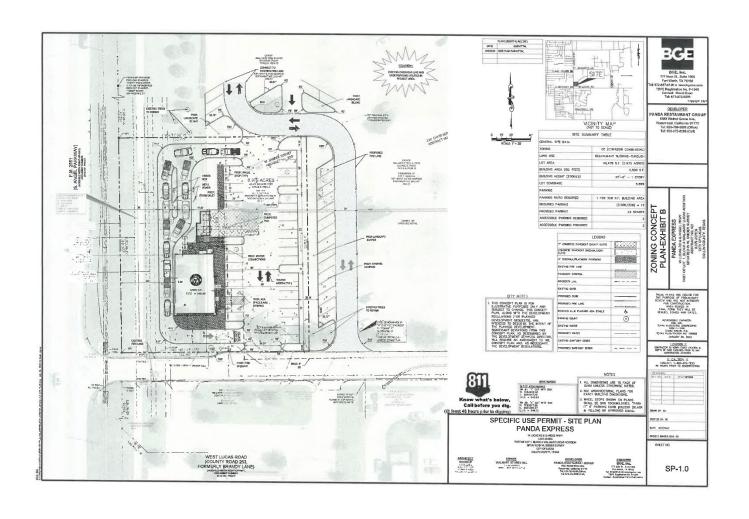
THENCE North 89 degrees 13 minutes 52 seconds East, across said Lot 1, a distance of 192.60 feet to a point for corner;

THENCE South 00 degrees 46 minutes 08 seconds East, continuing across said Lot 1, a distance of 220.55 feet to a point for corner;

THENCE South 89 degrees 13 minutes 52 seconds West, continuing across said Lot 1, a distance of 192.60 feet to the POINT OF BEGINNING and containing 0.975, or 42,478 square feet of land, more or less.

Exhibit "A" City of Lucas Ordinance 2022-04-00948 Approved: April 7, 2022

EXHIBIT "B" CONCEPT PLAN





City of Lucas City Council Agenda Request April 7, 2022

Requester: Assistant to the City Manager Kent Souriyasak

Agenda Item Request

Receive a presentation on the Keep Texas Beautiful Governor's Community Achievement Award honoring Keep Lucas Beautiful.

Background Information

The City established Keep Lucas Beautiful in 2016 as an affiliate member of Keep Texas Beautiful, whose mission is to inspire and empower Texans to keep our communities clean and beautiful. The City continues to support Keep Lucas Beautiful by providing resources and developing programs annually, including cleanup events, environmental conservation efforts, sustainable practices, beautification, and educational initiatives.

On March 23, 2022, Keep Texas Beautiful informed the City that Keep Lucas Beautiful has received first place and will be awarded the Governor's Community Achievement Award for Population Category 3 (5,501 - 9,000). In 2021, Keep Lucas Beautiful held programs such as the Spring Cleanup, Electronic Recycling, Paper Shredding, Public Lands Trail Cleanup, and Arbor Day. Staff compiles data from each program as part of required reporting to Keep Texas Beautiful.

Keep Texas Beautiful will present the City with the Governor's Community Achievement Award at an awards dinner on June 29, 2022, in Austin, Texas.

Attachments/Supporting Documentation

1. 2022 Governor's Community Achievement Awards List

Budget/Financial Impact

In addition to receiving the Governor's Community Achievement Award, the City will be awarded \$130,000 to be used towards a landscaping project which has yet to be determined.

Recommendation

NA

Motion

There is no motion required.



2022 Governor's Community Achievement Awards

Category 1

Population up to 3,000 Landscape award: \$90,000

1stSalado

2nd Rancho Viejo 3^{rd} Surfside Beach /

Collinsville (tied)

Category 4

Population 9,001 – 15,000 Landscape award: \$160,000

1stWoodway 2nd Seabrook

Category 7

Population 40,001 – 65,000 Landscape award: \$250,000

1st Grapevine 2nd Haltom City 3rd

Burleson

Category 2

Population 3,001 – 5,500 Landscape award: \$110,000

1stRichwood 2nd Pilot Point 3^{rd} Chandler

Category 5

Population 15,001 – 25,000 Landscape award: \$180,000

1stKaty 2nd **Ennis** 3^{rd} Marshall

Category 8

Population 65,001 – 90,000 Landscape award: \$270,000

1stRowlett

2nd North Richland Hills

3rdFlower Mound

Category 10

Population 180,001+ Landscape award: \$310,000

1stIrving 2nd Laredo 3rd Garland

Category 3

Population 5,501 – 9,000 Landscape award: \$130,000

1stLucas 2nd Nolanville 3^{rd} **Aransas Pass**

Category 6

Population 25,001 – 40,000 Landscape award: \$210,000

1stCanyon Lake 2nd Lake Jackson 3rd Copperas Cove

Category 9

Population 90,001 – 180,000 Landscape award: \$290,000

1stAllen 2nd Pearland 3rd Odessa





City of Lucas City Council Agenda Request April 7, 2022

Requester: Development Services Director Joe Hilbourn

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

Agenda Item Request

Consider adopting Ordinance 2022-04-00945 amending the Code of Ordinances, Chapter 13 Utilities, Exhibit A, Stormwater Run-Off Planning and Design Criteria Manual.

Background Information

At the March 10, 2022, Planning and Zoning Commission meeting, the Commission reviewed amendments proposed to the Stormwater Run-Off Planning and Design Manual by the City's On-Call Engineer, Joe Grajewski. The Commission recommended approval of the following amendments with the addition that "standard construction" be added to items (i) and (j) below.

A copy of the manual in its entirety has been included with this item that highlights all proposed changes.

- 1. Add the following after the first paragraph of Section A. General of Chapter 13, Exhibit A (Stormwater Run-Off Planning and Design Criteria Manual):
 - "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.



City of Lucas City Council Agenda Request April 7, 2022

- i) Standads construction details and calculations for the outfall structures at each detention or retention pond for each storm event. 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.
- i) Storm sewer standard construction details
- k) Any additional information as requested by the City Engineer"
- 2. Strike the first paragraph of Section D. Rainfall-Intensity-Frequency of Chapter 13, Exhibit A (Stormwater Run-Off Planning and Design Criteria Manual) and replace with the following:
 - "The National Oceanic and Atmospheric Administration (NOAA) Atlas 14 Precipitation-Frequency Atlas of the United States, Texas (2018) is recognized as the best available set of rainfall data for the State of Texas. This data (referred to as Atlas 14) provides point precipitation frequency values. Lucas City Hall (665 Country Club Rd, Lucas, Texas) has been selected to define standard rainfall intensity values throughout the City. All developments must be analyzed using the most recently adopted rainfall intensities, included as Table 1. Redevelopment sites with receiving drainage infrastructure that was previously designed using a previous rainfall intensity standard are required to analyze and design stormwater facilities using the updated values."
- 3. Create Section L. Tables and Forms to the end of Chapter 13, Exhibit A (Stormwater Run-Off Planning and Design Criteria Manual). Add the following Table and Forms to Section L as Table 1, Form A, Form B, Form C, Form D & Form E.

Attachments/Supporting Documentation

- 1. Redlined/highlighted version of proposed amendments to the Code of Ordinances, Exhibit 13A, Planning and Design Criteria Manual
- 2. Ordinance 2022-04-00945 Amending Chapter 13

Budget/Financial Impact

NA

Recommendation

The Planning and Zoning Commission recommended approval of the amended language to the Stormwater Run-Off Planning and Design Criteria Manual with the addition that "standard construction" be added to items Section A (i) and (j).



City of Lucas City Council Agenda Request April 7, 2022

Motion

I make motion to approve/deny adopting Ordinance 2022-04-00945 amending the Code of Ordinances, Chapter 13 Utilities, Exhibit A, Stormwater Run-Off Planning and Design Criteria Manual as presented.



STORMWATER RUN-OFF PLANNING AND DESIGN CRITERIA 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.

ADD THE FOLLOWING

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) <u>Standard construction</u> details and calculations for the outfall structures at each detention or retention pond for each storm event. 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.
- i) Storm sewer standard construction details
- k) Any additional information as requested by the City Engineer

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	Parks and Open Space	0.35
Industrial	0.70	Schools, Churches, etc.	0.75
Single Family Residential	0.55		
Multi-Family	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. DELETE THIS PARAGRAPH

ADD THIS PARAGRAPH

The National Oceanic and Atmospheric Administration (NOAA) Atlas 14 Precipitation-Frequency Atlas of the United States, Texas (2018) is recognized as the best available set of rainfall data for the State of Texas. This data (referred to as Atlas 14) provides point precipitation frequency values. Lucas City Hall (665 Country Club Rd, Lucas, Texas) has been selected to define standard rainfall intensity values throughout the City. All developments must be analyzed using the most recently adopted rainfall intensities, included as Table 1. Redevelopment sites with receiving drainage infrastructure that was previously designed using a previous rainfall intensity standard are required to analyze and design stormwater facilities using the updated values.

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 =
$$\frac{1.486}{n}$$
 AR^{2/3}S ^{1/2}
n [sic]
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:

		Maximum Permissible
Type of Lining	Roughness Coefficient "n"	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: I when grass lined and 1.5: I 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 with the limitation that culvert pipe diameter shall be a minimum 18". A headwall is required at exposed ends. Under private driveways, permanent culverts (those with reinforced concrete, asphalt, or AASHTO #3 gravel paving over the culvert) and temporary culverts (those without paving over the culvert) shall be constructed with reinforced concrete or minimum 16 gauge galvanized corrugated steel pipe. Temporary culverts and driveways must be removed within 18 months of permit issuance and the open channel reconstructed to its original design. Under public roads reinforced concrete culverts are required. Permanent culvert design shall include minimum embedment of Class B+ per the North Central Texas Council of Governments (NCTCOG) design manual drawing 3020 dated October 2004.

K. Stormwater Detention Pond Design

The basic concept underlying the use of stormwater detention ponds (SOP) 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 than [sic] 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
C	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 (I) 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 SOP 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\\

 $Q = C_v \tan (0/2) H^{2.5}$

where

Q = Weir Flow, cubic feet per second

 $C_v = Weir Coefficient$

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 in TR-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 moved 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.

ADD THE FOLLOWING

L. Tables and Forms

The following tables and forms are outlined and depicted below:

Table 1: Rainfall Intensities

Form A: Rational Method Runoff Calculation

Form B: Inlet Design Calculations

Form C: Storm Drain Calculations

Form D: Water Surface Profile Calculations

Form E: Open Channel Calculations

Table 1: Rainfall Intensities

Dura	ation	Rainfall Intensity (in/hr) by Storm Frequency (Years)						
min	hr	2-year	5-year	10-year 25-year		50-year	100-year	
5	0.083	5.94	7.24	8.29 9.72		10.80	11.90	
10	0.167	4.76	5.80	6.65	7.80	8.68	9.53	
15	0.25	3.95	4.80	5.50	6.44	7.14	7.84	
30	0.5	2.75	3.33	3.81	4.45	4.93	5.40	
60	1	1.79	2.18	2.50	2.93	3.26	3.58	
120	2	1.11	1.37	1.59	1.88	2.11	2.35	
180	3	0.826	1.03	1.20	1.44	1.62	1.82	
360	6	0.494	0.620	0.728	0.882	1.00	1.13	
720	12	0.291	0.366	0.431	0.522	0.595	0.673	
1440	24	0.171	0.215	0.253	0.307	0.350	0.395	

Form A: Rational Method Runoff Calculation

	Design Flow (Q _D) By Rational Method									
Location	Design Storm Frequency (years)	Frequency Concentration		Drainage Area "A" (acres)	Runoff Coefficient "C"	Design Flow Q _D = C x I x A				
1	2	3	4	5	6	7				

Form B: Inlet Design Calculations

Inlet Design				Area Runoff Q = CIA				Carry- Over	•		Gutter		Selected Inlet		Carry-Over
No.	Location	Storm Frequency (years)	Time of Conc. (min)	Intensity "I" (in/hr)	Runoff Coefficient "C"	Area (acres)	"Q" (cfs)	From Upstream Inlet (cfs)	Gutter Flow (cfs)	Gutter Capacity (cfs)	Slope (ft/100 ft)	Crown Type	Length "LI" (feet)	Туре	To Downstream Inlet (cfs)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

Form C: Storm Drain Calculations

U/S Station	D/S Station	Distance Between Collection Points	Area No.	Drainage Area "A" (acres)	Runoff Coeff. "C"	Incremental "CA"	Total "CA"	Time at U/S Station (mins)	Design Storm Frequency (yrs)	Intensity "I" (in/hr)	Water	Slope of Hydraulic Gradient "S" (ft/ft)	Storm	Collection	Loss	Head Loss at U/S	Flow Time in Sewer Distance v x 60 (mins)	Time at D/S Station (mins)	U/S HGL	D/S HGL	U/S Proposed Ground	D/S Proposed Ground	Remarks
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24

Form D: Water Surface Profile Calculations

Section and Subsection	Assumed	Sections	Subsection		"R" = A	R ^{2/3}	Subsection Roughness Coefficient "n"	1.486A n	Conveyance Factor "Y"= $\frac{1.486A}{n}(R^{2/3})$	Friction Slope $"S_f" = \left(\frac{Q_T}{Y}\right)^2$ (ft/ft)	Avg. S _f Between Sections (ft/ft)	Friction Head Loss Between Sections "h _f "= Avg. S _f (L) (feet)	Subsection Flow "Qs" (cfs)	Subsection Velocity $V_S = \frac{Q_S}{A_S} \label{eq:VS}$ (fps)	V_S^2	$V_S^2(Q_S)$	$\label{eq:weighted} \begin{aligned} &\text{Weighted} \\ &\text{Velocity} \\ &\text{Head} \\ &\text{"hv"} = \frac{\sum V_S^2 Q_S}{2 g Q_T} \\ &\text{(feet)} \end{aligned}$		Eddy Losses " $E_{\rm l}$ "= $0.1(+h_{\rm V\Delta})$ or $0.5(-h_{\rm V\Delta})$ (feet)	Total Loss $"\Delta H" = (h_f) + (h_{V\Delta}) + (E_l)$ (feet)	WATER SURFACE ELEVATION
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22

Form E: Open Channel Calculations

Channe	l Station	Channel Type	Flow "Q" (cfs)	Roughness Coeff. "n"	Slope "S" (ft/ft)	"S ^{1/2} "	$\frac{Q \times n}{1.486 \times S^{1/2}}$	Width "b" (feet)	Depth "d" (feet)	Side Slope	Area "A" (sq ft)	Wetted Perimeter	$\begin{aligned} & \text{Hydraulic} \\ & \text{Radius} \\ & R_h = \frac{A}{WP} \end{aligned}$		$A \times R_h^{2/3}$	Velocity $V = \frac{Q}{A}$	Velocity Head $\frac{v^2}{2g}$	Remarks
From	То											(/	(feet)			(fps)	(feet)	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19

ORDINANCE 2022-04-00945 [AMENDING CODE OF ORDINANCES, CHAPTER 13, EXHIBIT A]

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF LUCAS, TEXAS, AMENDING THE LUCAS CODE OF ORDINANCES BY AMENDING CHAPTER 13 TITLED "UTILITIES" BY AMENDING EXHIBIT A TITLED "PLANNING AND DESIGN DRAINAGE CRITERIA" BY AMENDING "A. GENERAL" BY ADDING REQUIREMENTS FOR PLANS; AMENDING "D. RAINFALL FREQUENCY" BY ADDING NOAA FOR RAINFALL COLLECTION DATA IN THE STATE OF TEXAS; BY ADDING A NEW SECTION "L" TITLED "TABLES AND FORMS" TO ADD A RAINFALL INTENSITIES **TABLE** AND FORMS FOR RATIONAL **METHOD** CALCULATION, INLET DESIGN CALCULATIONS, STORM DRAIN CALCULATIONS, WATER SURFACE PROFILE CALCULATIONS, AND OPEN CHANNEL CALCULATIONS; PROVIDING A REPEALING CLAUSE; PROVIDING A SEVERABILITY CLAUSE; PROVIDING A SAVINGS CLAUSE; AND PROVIDING FOR AN EFFECTIVE DATE.

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

Section 1. The Code of Ordinances of the City of Lucas, Texas, is hereby amended by amending Chapter 13 titled "Utilities" by amending Exhibit "A" titled "Planning and Design Drainage Criteria" by amending Section "A. General" and Section "D. Rainfall Intensity Frequency", and by adding a new Section "L. Tables and Forms", to read as follows:

"CHAPTER 13 UTILITIES

. . .

EXHIBIT A

PLANNING AND DESIGN DRAINAGE CRITERIA

AMEND "A. GENERAL", AS FOLLOWS:

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.

City of Lucas

ADD:

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) Standard construction details and calculations for the outfall structures at each detention or retention pond for each storm event. 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 standard construction details; and
- (k) Any additional information as requested by the City Engineer

• • •

AMEND "D. Rainfall Intensity Frequency", as follows:

D. Rainfall Intensity Frequency

DELETE:

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.

ADD:

The National Oceanic and Atmospheric Administration (NOAA) Atlas 14 Precipitation-Frequency Atlas of the United States, Texas (2018) is recognized as the best available set of rainfall data for the State of Texas. This data (referred to as Atlas 14) provides point precipitation frequency values. Lucas City Hall (665 Country Club Rd, Lucas, Texas) has been selected to define standard rainfall intensity values throughout the City. All developments must be analyzed using the most recently adopted rainfall intensities, included as Table 1. Redevelopment sites with receiving drainage infrastructure that was previously designed using a previous rainfall intensity standard are required to analyze and design stormwater facilities using the updated values.

. . .

ADD NEW "l. Tables and Forms":

The following tables and forms are outlined and depicted below:

Table 1: Rainfall Intensities

Form A: Rational Method Runoff Calculation

Form B: Inlet Design Calculations

Form C: Storm Drain Calculations

Form D: Water Surface Profile Calculations

Form E: Open Channel Calculations

..."

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

Section 3. That should any word, sentence, paragraph, subdivision, clause, phrase or section of this Ordinance or of the City of Lucas Code of Ordinances, as amended hereby, be adjudged or held to be voided or unconstitutional, the same shall not affect the validity of the remaining

portions of said Ordinances or the City of Lucas Code of Ordinances, as amended hereby, which shall remain in full force and effect.

Section 4. An offense committed before the effective date of the Ordinance is governed by prior law and the provisions of the City of Lucas Code of Ordinances in effect when the offense was committed and the former law is continued in effect for this purpose.

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

DULY PASSED AND APPROVED BY THE CITY COUNCIL OF THE CITY OF LUCAS, COLLIN COUNTY, TEXAS, ON THIS 7th DAY OF APRIL, 2022.

	APPROVED:
	Jim Olk, Mayor
APPROVED AS TO FORM:	ATTEST:
Joseph J. Gorfida, Jr., City Attorney (03-25-2022:TM 128630)	Stacy Henderson, City Secretary

Table 1: Rainfall Intensities

Dura	ation	Rai	nfall Intens	ity (in/hr) b	y Storm Fre	quency (Yea	ars)
min	hr	2-year	5-year	10-year	25-year	50-year	100-year
5	0.083	5.94	7.24	8.29	9.72	10.80	11.90
10	0.167	4.76	5.80	6.65	7.80	8.68	9.53
15	0.25	3.95	4.80	5.50	6.44	7.14	7.84
30	0.5	2.75	3.33	3.81	4.45	4.93	5.40
60	1	1.79	2.18	2.50	2.93	3.26	3.58
120	2	1.11	1.37	1.59	1.88	2.11	2.35
180	3	0.826	1.03	1.20	1.44	1.62	1.82
360	6	0.494	0.620	0.728	0.882	1.00	1.13
720	12	0.291	0.366	0.431	0.522	0.595	0.673
1440	24	0.171	0.215	0.253	0.307	0.350	0.395

Form A: Rational Method Runoff Calculation

			Design Fl By Rationa			
Location	Design Storm Frequency (years)	Time of Concentration (mins)	Intensity "I" (in/hr)	Drainage Area "A" (acres)	Runoff Coefficient "C"	Design Flow Q _D = C x I x A
1	2	3	4	5	6	7

Form B: Inlet Design Calculations

	Inlet	Design			Area Runoff Q = CIA			Carry- Over	Total	Conttant	Gutter			cted let	Carry-Over
No.	Location	Storm Frequency (years)	Time of Conc. (min)	Intensity "I" (in/hr)	Runoff Coefficient "C"	Area (acres)	"Q" (cfs)	From Upstream Inlet (cfs)	Gutter Flow (cfs)	Gutter Capacity (cfs)	Slope (ft/100 ft)	Crown Type	Length "LI" (feet)	Туре	To Downstream Inlet (cfs)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

Form C: Storm Drain Calculations

U/S Station	D/S Station	Distance Between Collection Points	Area No.	Drainage Area "A" (acres)	Runoff Coeff. "C"	Incremental "CA"	Total "CA"	Time at U/S Station (mins)	Design Storm Frequency (yrs)	Intensity "I" (in/hr)	Water	Slope of Hydraulic Gradient "S" (ft/ft)	Storm	Collection	Loss	Head Loss at U/S	Flow Time in Sewer Distance v x 60 (mins)	Time at D/S Station (mins)	U/S HGL	D/S HGL	U/S Proposed Ground	D/S Proposed Ground	Remarks
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24

Form D: Water Surface Profile Calculations

Section and Subsection	Assumed	Sections	Subsection		"R" = A	R ^{2/3}	Subsection Roughness Coefficient "n"	1.486A n	Conveyance Factor "Y"= $\frac{1.486A}{n}(R^{2/3})$	Friction Slope $"S_f" = \left(\frac{Q_T}{Y}\right)^2$ (ft/ft)	Avg. S _f Between Sections (ft/ft)	Friction Head Loss Between Sections "h _f "= Avg. S _f (L) (feet)	Subsection Flow "Qs" (cfs)	Subsection Velocity $V_S = \frac{Q_S}{A_S} \label{eq:VS}$ (fps)	V_S^2	$V_S^2(Q_S)$	$\label{eq:weighted} \begin{aligned} &\text{Weighted} \\ &\text{Velocity} \\ &\text{Head} \\ &\text{"hv"} = \frac{\sum V_S^2 Q_S}{2 g Q_T} \\ &\text{(feet)} \end{aligned}$		Eddy Losses " $E_{\rm l}$ "= $0.1(+h_{\rm V\Delta})$ or $0.5(-h_{\rm V\Delta})$ (feet)	Total Loss $"\Delta H" = (h_f) + (h_{V\Delta}) + (E_l)$ (feet)	WATER SURFACE ELEVATION
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22

Form E: Open Channel Calculations

Channe	l Station	Channel Type	Flow "Q" (cfs)	Roughness Coeff. "n"	Slope "S" (ft/ft)	"S ^{1/2} "	$\frac{Q \times n}{1.486 \times S^{1/2}}$	Width "b" (feet)	Depth "d" (feet)	Side Slope	Area "A" (sq ft)	Wetted Perimeter	$\begin{aligned} & \text{Hydraulic} \\ & \text{Radius} \\ & R_h = \frac{A}{WP} \end{aligned}$		$A \times R_h^{2/3}$	Velocity $V = \frac{Q}{A}$	Velocity Head $\frac{v^2}{2g}$	Remarks
From	То											(/	(feet)			(fps)	(feet)	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19



City of Lucas City Council Agenda Request April 7, 2022

Requester: Development Services Director Joe Hilbourn

Agenda Item Request

Consider approval of proposed edits recommended by the Parks and Open Space Board and the Planning and Zoning Commission to Chapter 6 Parks, Recreation, and Open Space of the City of Lucas Comprehensive Plan, including the updated Trails Master Plan, and provide direction to staff regarding any additional amendments.

Background Information

On December 13, 2021, the Parks and Open Space Board reviewed and approved proposed edits to Chapter 6 Parks, Recreation, and Open Space, including the updated Trails Master Plan. Staff along with the Parks and Open Space Board rewrote and updated Chapter 6. The redline version in the packet includes edits from the Planning and Zoning Commission of the newly rewritten Chapter 6.

On March 10, 2022, the Planning and Zoning Commission approved final edits to Chapter 6 Parks, Recreation, and Open Space of the Comprehensive Plan and the updated Trails Master Plan. The redline version of Chapter 6 included with this agenda item incorporates amendments made by the Planning and Zoning Commission as well as staff at the direction of the Commission.

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.

Chapters	Planning and Zoning	City Council
	Review	Review
Chapter 1 (complete)	January 13	February 17
Chapter 2 (complete)	January 13	February 17
Chapter 3 (complete)	January 13	February 17
Chapter 4 (complete)	February 10	March 3
Chapter 5 (complete)	February 10	March 3
Chapter 6	March 10	April 7
(including Trails Master Plan)		
Chapter 7	April 14	May 5
(including Master Thoroughfare Plan)		
Chapter 8	May 12	June 2



City of Lucas City Council Agenda Request April 7, 2022

Attachments/Supporting Documentation

- 1. Updated redline version of Chapter 6 Parks, Recreation, and Open Space of the Comprehensive Plan proposed by the Planning and Zoning Commission.
- 2. Updated Trails Master Plan.

Budget/Fi	nancial	Impact
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NA

Recommendation

NA

Motion

I make a motion to approve the edits recommended by the Parks and Open Space Board and the Planning and Zoning Commission to Chapter 6, Parks, Recreation, and Open Space of the City of Lucas Comprehensive Plan, including the updated Trails Master Plan.

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 Citycity 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 WorthDFW Metroplex that is easily accessible to public

parks, trails, recreational activities, and Lavon Lake. The <u>Ccity</u>'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 (POSB) that serves in an advisory capacity to the City Council in all matters relating to parks and open space. The POSBarks 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 Citycity worked with the POSB 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 (TMP) 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 (POSTMP) 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 Citycity. The plan revealed there was a lack of open space and recreation areas that needed to be addressed as the Citycity 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 Ecity 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 park_land shall be in accordance with the master park plan.
- The <u>Citycity</u> 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 Ccity.

2004 – The <u>Sci</u>ty 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 – <u>Lucas The City</u> moved forward with developing the <u>POSTMP Parks and Open Space Master Plan</u>. The <u>City</u> 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 <u>its_proximity to Lake</u> Lavon-<u>Lake</u>.

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 Lake 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 <u>POSMP Parks and Open Space Master Plan</u> was adopted by the City Council and serves as the master plan for the physical development of the <u>Citycity</u> to provide recommendations for the <u>its</u> growth, development, and beautification.

2015 – The City began efforts to update the Comprehensive Plan and the POSMP 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 POSB Parks and Open Space Board took on an active role in recommending updates including developing the TMP Trails Master Plan.

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2017 – The City Council approved the Comprehensive Plan which included the <u>TMPTrails Master Plan</u> and updated <u>POSMPParks and Open Space Plan</u>. <u>TMPThe Trails Master Plan</u> 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 POSB Parks and Open Space Board recommends new changes to the Trails Master PlanTMP located in the southern trail section (Willow Springs Middle School to Southview Drive) and northern trail section (Trinity Trail Connect). The POSB Parks and Open Space Board has prioritized sections of the Trails Master PlanTMP based on connectivity to schools, public facilities, and access points to the Trinity Trail. The POSB 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 (COE). Lucas has three accessible trailheads available to the public: East Winningkoff Trailhead, Brockdale Park Trailhead, and Highland Park Trailhead. The Citycity owns and maintains the East Winningkoff Trailhead which provides trail access in the northern area of Lucas. The U.S. Army COECorps 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 Gety 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 Citycity 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 <u>Citycity</u> made park improvements to remove dilapidated structures which accumulated within the vicinity of the park. As part of the park renovations, the <u>Citycity</u> 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 <u>adjacent</u> 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 Citycity developed the East Winningkoff Trailhead which is located in the northeast section of the Citycity. 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 COEGorps 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 Lake 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 Lake 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 Gorps of Engineers COE 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 NTMWD 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, ADA compliant restrooms 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 including. Green space includes parks, community gardens, and cemeteries. The cetty'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 Lake. The most important natural feature in Lucas is Lake Lake and its tributary creeks. Lake Lavon-Lake was constructed in 1954 and is owned and controlled by the U.S. Army COE orps 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 <u>Lake</u> Lavon <u>Lake</u> 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 C<u>OEorps of Engineers</u>. The trail extends from the south at the East Fork Trailhead in Wylie, <u>Texas</u> to the north at the Giant Sycamore Loop in Fairview, <u>Texas</u>. There is approximately 11 miles of the Trinity Trail that passes through Lucas. This trail enters the <u>Citycity</u> from the south at Collin Park in St. Paul, <u>Texas</u> 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 Citycity partners with the Trinity Trail Preservation Association and the U.S. Army COEorps of Engineers for a Public Lands Trail Cleanup where volunteers pick up trash and debris on sections of the Trinity Trail. The Citycity also entered into a Memorandum of Understanding between Collin County and the U.S. Army Corps of EngineersCOE to work

together in coordinating and supporting the development and operation of a multi-use trail for equestrian and pedestrian use at <u>Lake Lavon Lake</u>. 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 PlanPOSMP, the Citycity 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 its Comprehensive Plan, the POSB Parks and Open Space Board worked towards developing the Trails Master PlanTMP 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 the safety of all users along the trail system, the Trails Master PlanTMP 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 POSB Parks and Open Space Board has prioritized the Central Loop in the Trails Master PlanTMP 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, the 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 Citycity 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 PlanTMP. 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 Citycity. 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 TMPTrails 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 PlansPOSTMP help outline a prioritized plan for the development of parks, open space, and trails in Lucas. Since 2017, the Citycity 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 Citycity 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. Lucas 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 <u>Lake</u> Lavon-<u>Lake</u>, 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 <u>Lake</u> Lavon <u>Lake</u>.
- Encourage development types, which minimize impacts upon the community's natural resources and visual appeal.

GOAL 2.

Provide a comprehensive Trails Master PlanTMP 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 Planto 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

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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 <u>TMPTrails Master Plan</u>" 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 <u>Citycity</u> collaborates with community stakeholders when considering new projects related to public parks, open space, and trails. As the Lucas population continues to increase, the <u>POSB Parks and Open Space Board</u> 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 <u>Citycity</u> 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 <u>Citycity</u> may want to consider expansion in the future. In addition to parks and open space, the City has updated its <u>Trails Master Plan TMP</u> by examining practical trail locations that would not impede on a resident's property.

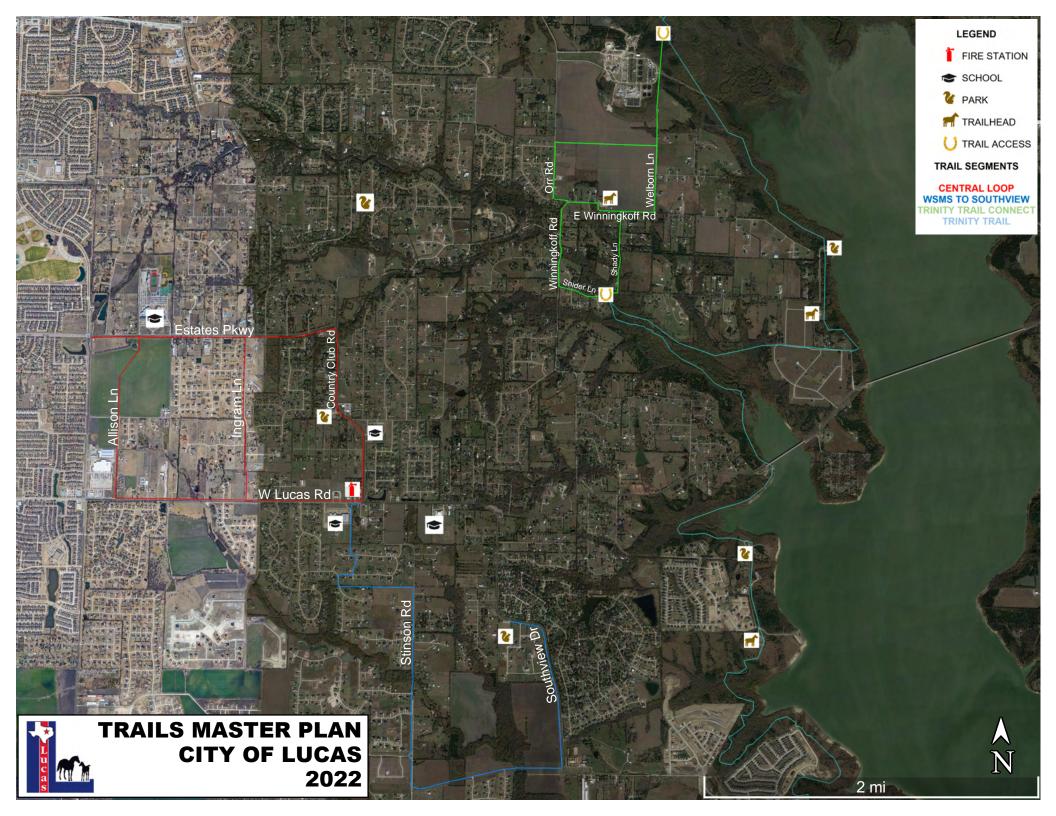
The POSB Parks and Open Space Board has developed an adopt-a-park program where each board member visits a city park on a rotational basis to help recommend park improvements to the Ccity. To further help achieve the goals in this plan, the cCity's Keep Lucas Beautiful program continues to promote the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

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- 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 <u>Trails Master PlanTMP</u> 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 <u>City's</u> 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 their 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.

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City of Lucas City Council Agenda Request April 7, 2022

Requester: Assistant to the City Manager Kent Souriyasak

City Secretary Stacy Henderson Graduate Intern Kevin Becker

Agenda Item Request

Consider the selection of a new solid waste and recycling services provider in response to the Request for Proposals for Solid Waste and Recycling Services per the City of Lucas specifications; and authorize the City Manager to negotiate an agreement.

Background Information

The City's current agreement for residential solid waste services with Barnes Waste Disposal expires on September 30, 2022. The City received notice from Barnes Waste Disposal indicating that they determined they were unable to continue to provide solid waste services. The City has a separate agreement with Republic Services for the collection of recyclable materials on a subscription basis every other week which will expire on March 31, 2023.

Per the current agreement with Republic Services, Section 12.1 state:

City may terminate this Agreement, or any portion thereof, at any time with or without cause, by serving a notice of termination on Contractor by registered or certified mail addressed to Contractor at the address set forth herein.

The City Council requested staff to prepare a Request for Proposal (RFP) for Solid Waste and Recycling Services and provided direction to be included in the proposal:

- Vehicle specifications including preference for smaller trucks
- Concierge service for all residents for pickups closer to the home and associated fee
- Rates based on recycling services for all residents and on a subscription basis
- Rates based on commercial services
- Combine billing for solid waste and recycling services
- Enhanced bulk pickup services and associated fee
- Residential brush pickup, larger than six cubic yards, and offered more than once a month
- Extra residential brush pickup service and associated fee
- Storm cleanup services and associated fees

The City released the RFP for Solid Waste and Recycling Services on January 24, 2022, with a proposal submission deadline by 5:00 pm on February 28, 2022. Two addendums were issued in response to questions from proposers after the RFP was released.



City of Lucas City Council Agenda Request April 7, 2022

A pre-proposal meeting was held on February 1, 2022, at 10:00 am, at which six represented companies attended with interest in submitting a proposal. All providers were made aware of the timeline for submitting proposals and specifications in the RFP. The following companies were present during the pre-proposal meeting: Blackjack Disposal, CARDS Recycling, Community Waste Disposal, Frontier Waste Solutions, Republic Services, and Waste Connections.

Of the six interested companies, four submitted proposals for consideration by the due date, February 28, 2022:

- Blackjack Disposal
- CARDS Recycling
- Community Waste Disposal
- Republic Services

Based on information submitted in the proposals, staff has identified the following residential options for City Council to consider as part of the selection process:

Option A – Residential Solid Waste Services Only

This option would continue the City's current offering of residential solid waste services only with the option for subscription-based recycling. Option A would include the following residential services:

- Solid waste collection weekly
- Unlimited bundled brush collection weekly (cut not greater than four feet in length and not heavier than 40 pounds per bundle)
- Unbundled brush collection twice per month (cut not greater than four feet in length and in a volume of two cubic yards)
- Subscription-based recycling collection weekly
- Concierge service option for all customers with an associated fee
- Excess brush collection option for all customers with an associated fee
- Bulky item removal with an associated fee
- Manure and stable matter collection with an associated fee
- Additional 95-gallon carts with an associated fee

Option B – Residential Solid Waste and Recycling Services

Per City Council direction, staff requested proposals to include rates for both solid waste and recycling services for all residents to determine how this would affect residential rates. This option would include both solid waste and recycling services for all residents as part of an all-inclusive rate.



City of Lucas City Council Agenda Request April 7, 2022

Option B would include the following residential services:

- Solid waste and recycling collection weekly
- Unlimited bundled brush collection weekly (cut not greater than four feet in length and not heavier than 40 pounds per bundle)
- Unbundled brush collection twice per month (cut not greater than four feet in length and in a volume of two cubic yards)
- Concierge service option for all customers with an associated fee
- Excess brush collection option for all customers with an associated fee
- Bulky item removal with an associated fee
- Manure and stable matter collection with an associated fee
- Additional 95-gallon carts with an associated fee

In addition, staff requested proposals to include an option for commercial services to determine how commercial services would affect residential rates. However, the inclusion of commercial services either did not have an effect on residential rates or the rates could not be determined by the proposer.

Staff assembled a team to review and evaluate the submitted proposals with a goal of providing a recommendation to the City Council. The staff evaluation team included Assistant to the City Manager Kent Souriyasak, City Secretary Stacy Henderson, and Graduate Intern Kevin Becker. Staff utilized a scoring system based on evaluation criteria in the RFP:

- Letter of Intent and Company Overview
- Method of Approach including solid waste, recycling, bundled brush, unbundled brush, excess brush, bulky items, concierge service, manure/stable matter collection, commercial services, city services, personnel, household hazardous waste program, route collection schedules, carts, vehicles, disposal/processing facilities, customer service, billing, and transition plan
- Experience and References including key personnel and municipal references
- Insurance, Performance Bond, and Financial History

Based on the criteria, staff has compiled the evaluations based on a scoring system and the proposals are ranked below:

- 1. Community Waste Disposal
- 2. Republic Services
- 3. Blackjack Disposal
- 4. CARDS Recycling



City of Lucas City Council Agenda Request April 7, 2022

Staff will provide City Council with separate attachments including a full report comparing proposals, rates, specifications, and evaluations to be reviewed. At the City Council meeting on April 7, 2022, staff will present a presentation that provides an overview of the RFP process, specifications for solid waste and recycling services, and evaluation criteria. Information contained in a bid or proposal would be considered confidential under the Public Information Act. Section 552.104 of the Texas Government Code provides as follows:

- (a) Information is excepted from the requirements of Section 552.021 if it is information that, if released, would give advantage to a competitor or bidder.
- (b) The requirement of Section 552.022 that a category of information listed under Section 552.022(a) is public information and not excepted from required disclosure under this chapter unless expressly confidential under law does not apply to information that is excepted from required disclosure under this section.

The purpose of section 552.104(a) is to protect the interests of a governmental body in situations such as competitive bidding and requests for proposals, where the governmental body may wish to withhold information in order to obtain more favorable offers.

Attachments/Supporting Documentation

1. A separate attachment including a full report comparing all proposals, rates, specifications, evaluations, and recommendations will be provided to City Council.

Budget/Financial Impact

A separate attachment comparing rates and other associated costs for solid waste and recycling services will be provided as a separate attachment to City Council.

Recommendation

After staff completed the proposal evaluation process, Community Waste Disposal was scored the highest overall, closely followed by Republic Services. Staff scored both companies considerably high in each criteria and they met the qualifications, requirements, and specifications as indicated in the RFP. Staff will be providing the City Council with a separate attachment including a full report comparing all proposals, rates, specifications, evaluations, and recommendations.



City of Lucas City Council Agenda Request April 7, 2022

Motion	
I make a motion to select	as the new solid waste and recycling services
· · · · · · · · · · · · · · · · · · ·	fications; and authorize the City Manager negotiate an
agreement with	



Requestor:

City of Lucas City Council Agenda Request April 7, 2022

Agenda Item Request		

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

Mayor Jim Olk

As authorized by Section 551.071 of the Texas Government Code, the City Council 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.

Background Information
NA
Attachments/Supporting Documentation
NA
Budget/Financial Impact
NA
Recommendation
NA
Motion

NA



NA

City of Lucas City Council Agenda Request April 7, 2022

Item No. 10

Requester: Mayor Jim Olk

Agenda Item Request

Reconvene from Executive Session and take any action necessary as a result of the Executive Session.

Background Information

NA

Attachments/Supporting Documentation

NA

Budget/Financial Impact

NA

Recommendation

NA

Motion